

SEQ ID NO: 1

1 TGCAAGCTTG CAAGTTTTAC TGTCTCATAT GGTTACACATA CCATTCATTT
 51 AGCGTGGCCT CACAACCAAC TTGGGAACCA CTGCCCTAAG TAACAATACC
 101 TCACATATCC ATAGGATCTT CAACACCATT CTGCTTAAAA TTCAAATCCC
 151 TTTCAATAAA ATAGAAGATA TTTAGATACA AGATAAATAG AGCATATGTT
 201 TGTATGTGGT CATCTTCAGT TCTAGAAACA GTTTCTTCTC TCTTATGCAA
 251 CTGAAAGTAG CTTAGTTTCC ACAGCCCCGT GCAGAGCAAT ACGGTTGTAC
 301 TGCTCTCAAA GAAGTACCAA CACAACATGC ATCAGCAGAG TTGCACAAGA
 351 CTAAGTAAAT AAAATTTGCT TAGCTGCTAG TGAAAACATA AGTATCCTTG
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 451 CAGCTAATCC TCGAAGAGCA AACTTGGTCG GAGAATAGGC TGTATAACCA
 501 AAAAGGCCTA ATTGCCCAGC CTGAGATGAT ACAAACACAA TCCTTCCCAT
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 601 CTAGATAATT GACTGCCATT AATCTCTGTG GGAAAAAAAAA AAGATATTAA
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2551	TATCCCCTCT	GCTAAACAAC	TATCAAGGTT	CTGAGGCAAC	TCAGTATCTT
2601	GAAAGGAGAA	GCAATCACAT	ACCACAATAG	AAGTAGAGAC	TCCTGTATTC
2651	TCATTCTGAT	TTCTACGTCT	TACTTTGTCC	AATTCCCTTA	AAGCTGGTTT
2701	GAGGTGAAAT	AAAGTCATCA	CCGGATTCTA	ACAAGCGTCA	TCAGGGTCAC
2751	TTGTCATGAA	GCACGCCAAC	AAAAATGAAG	AAAAGCTTAC	CAAAGTGTA
2801	CTAACTGCTT	TGGCAGCTAG	TCATTTGTCA	GTTTTGCCTC	TGGTCAGACT
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3151	GACCACAGAT	CAGTTAATCA	TACTGAGAAC	AATATACTCA	GGAACACTA
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3251	TTATTGTATT	TCCTTTCTGC	TACATTAAGT	TGATTACCTC	CAGTCCAGAG
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3651	TGGTTCTCAA	TGCAACTTAG	TTTGACATAT	ATATACATGA	GCAGAAATGA
3701	CAGCATATAA	TCATGTAAAA	ACTGGTATTT	CCTCTGGATT	TTTGCTCCCT
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3801	CAGACAACATC	TATACTTTCA	GCAATCTTCT	TGTACAGCCT	CTGTCTCTTT
3851	CGCTGCCCTC	ATTTGTTCAGC	TTCTTATCTG	CCGTTCTTCT	TCTATTTGTG
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3951	AACAGTAGGT	ACACGAGGGC	ACTCCCCTA	CAGCCAGATG	AAGTATGGAC
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4101	CATACCTAGT	ACTCTTCTTA	AGAAAACAGA	AATGTAAGTC	CACATCTGTC
4151	AAGCTTGGAC	AGATTTTAA	CAAGAGCATT	GTGACAGTGT	TTGACAAAGG
4201	ATCAAAGTCA	TTGTCAACCC	TGGGAAGAGA	CTAGAGCAAC	TAAAGGGAAA
4251	CCCTTACTGG	GGTTTATTTG	TTTTTAAAG	GGGACAAAAC	GTTGCTCCTC
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4351	AACATGCACA	GAAAGAAAGA	TCACCTTGAA	CCATTTGACA	GGAATGAGCA
4401	AAGACAGAAT	CTTGCTGAGT	GTTCTTGATA	TCTTCATTTA	CATCGGCTAG
4451	TACTAACATT	GCTTCCAAAT	ATCCATCTTT	CTCCACTGCT	TCTTTTCAGG
4501	AGAATATCCA	ACTTATCCAT	TCACCAGATT	ATTATACACC	CAATAGACAC
4551	CAAATCCCTT	ATCACAAACA	AATTGCTTGC	ACTTGTAATA	AAGAAAATAA
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4901	TGAAATCTGA	AAATAAGTAC	CTAAAATTTA	TTCCCCATTA	CAATTGCTGC
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5051	AAAAAACTC	TAATACACCT	ACAGGTGAAG	ATACCAATCT	TTTTCTCTGG
5101	GAAAAAAGT	TAGCATACTA	ACCAGGCAAC	ATCAAATGTA	GCTGAGTTTG

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Q gene exon 2

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Q gene exon 1

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11451	GACAGCGGGA	GTAAGAACC	TGCCCGCCTG	CGCCGCGGCG	CCACGGGGCC
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12201	AGATAATGCA	GGAGATGAGA	TTGGAGCGGG	GAGTAGGCGG	AAATGGGAGC
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12301	GGAACAAAAG	AATCCAGGAA	TTAGTTCTGG	AATGGGATTG	AGCCGGGATC
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12901	GGCCTCTAAA	AACCTCAAA	GCATGATATG	CTCCTGATTG	GTCACAGTTA
12951	GGATCACATA	TTACTAAATA	TTTGAGAAGC	CCTTGATAGT	TAACGAGGAA
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13051	TAAGTGGCCA	CTTTACAACC	GTGTGATTGA	CAATCCAGGT	AGCGTCCACT
13101	CACATTTTGT	TCCTGGGGCA	GTGAAGTGTC	ATGAATTTAT	CTCCAAGAAA
13151	AACATTCAAA	AGTGAAGACC	TTGTGAAGTG	CTTATAACTC	ACCAATGTAT
13201	CGCCACAGCA	GTAGGTTTTT	GACTCTTTTT	AGGTATGCCA	GCAGGCACTG
13251	AAGTTTGCCC	TCCTGAGCTG	TCTGCTGTCT	GGTTTGTATT	TGTCTCATGT
13301	GACCTCATTC	ACTGAGGAAG	TGCGTTCCTG	ACACACGGGA	ATGGTTTGTCT
13351	ACGAAACTCT	TTTCTCAGTG	ACTGTGGAAC	TGGAAATTGA	ACCTTAAAAA
13401	AAAAAAGTGT	TGAAGCCCTC	CAGTCCAAAC	TTTGGTTGTA	CATAAAGCAG
13451	TATTTAATTA	ATCTGACCTT	GATTAACAAC	ATCAAAAAGT	GTAATTTTGA
13501	AGCACAAACT	GACCAAGGTA	TGTATGTACC	TTCGGGATGG	GTAAGAAAAT
13551	AAAAAGGTTA	ACACATGCTA	ATTGCTTTGC	TAATTAATCC	TTAGAAGCAG
13601	CTTCAACACA	ACAGCGATGT	GTTTAGAGAA	GAAAATCAAA	TACAGGTAGA
13651	TTAAAGCGTC	CAAACATATAG	GACCAGCTGT	GGTTTTCTGC	TTCTCAGTTT
13701	CTGTTTCATAT	AATCTTTCAA	CAGACGTTTG	CAGTAACAAT	GTTGTGGGTT
13751	GAGATAAATC	AGTATGAACA	AAGCATGGCA	ACCGAAGTAA	GAAAGTAGTC
13801	ATTTAAACAC	GGAAACAAAT	GTATGAATTG	ATAATATTAC	AACACAAGTG
13851	ACTGATACTA	GAGGTGTCCT	TTTGATCTTC	TTGTTCCCAA	AGCATACAAG
13901	GTACACACAG	AAGAGACACA	GGCTGTGTTA	AGATGCCATT	AAGAGAAGGC
13951	ATAAAGGTTT	GACAGAGCAG	GTAGTGAGGT	TGCAGCCTGG	ACAGACTTTC
14001	TTATTGCACT	TGAGTACTCA	TCTGCTGGAT	TTTCTGGTTG	TGTCATATTC
14051	ACGTTAGGGA	GAGAGGAGGG	AAAAAGAGCA	GGATGCGTAG	GCTACTCAGT
14101	GATTAAACAA	AAAAAAAAAAG	CTGGAAACTT	CTTCATGTGA	TTTCCATCCA
14151	GTCAGTCCTT	CTGCTTTTAG	AGAAAGCAGC	ATGAAGGAAA	AACTTCAGTA
14201	GCCAAGGAGA	ACAACTTTTT	CCTTCTGTTT	TCCTGAATTA	ACTTACTTTC
14251	CTCTCCAACC	TTCTCCCTTT	TGTGTAGCAA	GCATAGGTGT	TCTATGCTCA
14301	TTTCTTAAGA	GGTCTGTTGC	AGTAATCATC	ATAAGACATC	AAAGGCATGT
14351	TGGCAGTTCT	TGGATTCCCTG	CAAAGCTTCA	AGATTTAGAA	TGATGGCAGT
14401	CTAGGTGAGT	TGTTCCCTGGT	ATAACAAGCTG	TCTTGATCCC	GTGTCCCAAA
14451	TGAGAAGAGC	TAATAGGGAC	ATAAGAAGCTG	AAATCAGAAA	AGGATTTACA
14501	TAACATGCTG	GCAGTAGAGG	AGAATTGGGC	AAGAAATAAT	GATCTGCACA
14551	TGGTAGTGAC	TAAAGCAGTG	TGACTGAAAT	ACTTATCACA	CCCAGCTGCT
14601	TGCCTTGCTG	TTCTTCCCCA	AACAAACAAG	CAAATCCCTT	GTAGCTGAAC
14651	AATAGCTTCT	TTACTGGTCC	ATCACGCTGG	AGAGATCATC	AGCTACCCCA
14701	TGCATAGCAG	GGTGAAACAG	CTCCCAGAGC	ACTGTGCAGG	TCAAAGTACT
14751	ATATGTACCC	TGTCTGCTGG	AGTGCTATCA	CGGTGATCTT	CTGGGTATTC
14801	CTAGAAGGAG	ATTTCTTGTA	CTCCCAAGCT	CAACGTATCA	TCCAGAAAGT
14851	GCTCGCCTGC	AGCAGGGACG	GGTTCTGGCG	ATCTCTGCAG	CTTCCAGCTA
14901	TGCCGCATGC	CCTTATCGCA	ATGAACTCAG	GCTGGGCTGA	TGGCCCAGGT
14951	GCTGGAGGCT	GCCAGCACGC	AGGCAGGAGG	TGGTTATAGC	AGCTCAGGCT
15001	CAGGTCAAAC	CAAGGCTTCT	TGCTGGGGCA	GAGGGGACTG	ACTCTGTGGT
15051	GCAAAAGCAG	GTAGTATATA	TATATGTATA	TATATACAAA	GCCCAGCTAC
15101	CAGCTGAGAG	TCCCAAGGCT	GCTGCAGTAG	TTTTTGCAATG	AGCACACAGG
15151	AAACAAGAAG	ATCGCTGAGA	ACACTGCTGA	AATCAGATTT	CTGTCTTCAC
15201	ACAGGTCAAG	CTGATTTAAC	TGTTTAAATGT	AATTGCTGCA	GTTGCTTGGA
15251	AAAAAAAAGA	AATAGTAAAA	CCATGTCCAA	AATGAACCAT	TCATAACTGG
15301	TGGCCCATTA	TGTGTCACAG	CCGATGTTGT	GCTGAATAAA	TAAGTGTACA
15351	GGTATTTTAT	ATATTGAGCA	ACATATTTAT	TGAAACAAAA	ATAATTTACC
15401	TCAAACCAGC	GGTAAAAGGA	AGTCTTTACT	GTCTAATTTA	AATAGGCATA
15451	AGTTAAACTC	GGGACTGAGA	TGATCTTGAA	TTTCATTTGG	TGCCCATGGT
15501	TCTTTTTTATG	TGGTACACCT	GCTTACACTT	ACCATCACAC	TGGAGCAGTT
15551	TGCTTTTGTGC	ACCCGAATGT	CAGACACTGC	TATAGATTTA	CAGTAGCTTG
15601	GGGGGGCTGC	AGGTTGGAAG	AGGGGGTTGA	GGCCTCATCA	AGTGCCATGG
15651	CAAAACACCC	TCAAGTAAGC	ACGGCTGGAA	GCAGGAAGGA	TGAGGGAATG
15701	AGCTGCCATT	TCCTTTGCGC	TGGAAGGATC	ACTGCTAAAA	CTTGTAATAA

15751	TCTGTTAGAA	ACAAACAGGG	ACGTTCACTT	TGTCCTGTGA	TGCAAGAGCA
15801	CCCATTCTGA	ATTTTTATCT	CCTGCAAAGT	TGTATTTAAG	CTGATGTTTA
15851	CCGTGGACGT	TCGTGTTACA	AGATAGCCTT	TGATACTATC	AATAACAAGT
15901	CCTCTTTGAT	GAAGTAAAGC	TACAGAGTCA	CAAAGCATGC	ACTTGTCTGA
15951	CCCTTTGCCT	GGCTGCCTGT	CCAACCACGT	TGCACCACTA	CACCCAGCCC
16001	CACGAGACCT	GCTCCAGGGC	CAAGGGAATT	GAGCACTTAA	GGGAAAGTGC
16051	TTTGTACAAA	ACATGGCGCT	TATGAGTTTG	AAAACGTAGA	TCCACCAAAA
16101	CCTCCTCAGG	CACGATGAGT	ATATTTTTTC	TCCACTACTT	ACAGCGCTGT
16151	GAATTCTAGT	TAAGGGCGTT	TTGATTCCTA	AAGAATTTTT	CCTTCTAATC
16201	ATAGACGTAC	TCCAGTCCTT	ATTCCAGAAG	GCTTACTCCT	TGTATTTTGA
16251	AGGTCTTATC	CTGAAATTGG	GATGCAGAGC	CATTCTGAAA	ATGACAGTAT
16301	TTTAAGACTT	TGCTGCACTT	ACTCTGGCTT	CCCACATACC	TTCTCTTGC
16351	AACCTTCCAC	CTCCCAGAAC	TGCAGCCCAG	CCTATCCTCC	TCTGCCAGAA
16401	AATCGGATCC	CACAGGCCCT	ATCTCACACC	TCCCGGTTCC	CCATCCTCAT
16451	GGCAGCTGCC	CTCTTTCCCA	AGGCACTCTA	TGGAGCAGCA	GAACCTGCTA
16501	GTGCACAGGG	CAAAGATCTG	CCGTTCGAG	AGAGCAGAGA	AGCATCGCTC
16551	GGGAATCACT	GCACTGCTGC	AGCACTATTG	TATTCTGCCT	TTATTCAGAG
16601	GCAGTCCTTC	ACCTATGAAT	ATCACTACTA	CCTTACTGAA	TATATATTTT
16651	CAGGAATATT	TTCACTTTTT	AGCCAGATAG	GAAGCGGATT	TTGTAATTAC
16701	CCTTCCAGCA	ACTTACAGCC	AATTACTGTC	TCTCCTCCTG	ATTCTGTCC
16751	AGCAATTTGG	TTGCAGTTAT	TGCTTCTCCA	GAGCGGGCAG	AATTTTTTGC
16801	TTTAGGAAAT	GTACACCTCG	AGGTAATCTT	TGAAGAGTGA	CAGGTTCTAA
16851	AGTTCACAAG	TTTGATCTGC	TTTGGGATTA	AGCTACCTGC	TAAACTACCA
16901	CACGCCATCC	AGTCAAGCCA	TTTCTATTAT	GTGCGTATGG	CTGATTCTTA
16951	TCACAAAAGA	TCAAGTTAAT	GATTTGCAGT	CTTCGGCAAG	CCTCTGGTTT
17001	CTTTGAACTT	GCTTTTTGTA	AGCGATATTC	TCGGGTACTT	TTTGTGCTTG
17051	TGAAGCTACT	GCAGTGCTCT	GGAGATTTTC	TTTGTGCTCC	TGGCTGTGAG
17101	AGTTATCCAT	TTCTAGGCCT	GCTTGGCCAT	CCCCATAGCA	CGGGGAGAAC
17151	CGTACTTTCC	CATTGCCCTT	GTACCTGCAC	TTGTAAAAAC	GCTAGAGGAA
17201	CTGAAATTAC	TTCAAGTTCC	TGCCCTGTCC	TCTTTCAAAG	CCATTCTGAG
17251	AACTTTCTTT	GCACAACCTT	TTTACAAGAG	TAAATCCGT	TTCTAGTTCC
17301	AGGCAACACA	CTTGTCATAC	ACAGCGCTGG	CAAGGGACTG	CTGTTTATTT
17351	CTTGCTTGGA	TGCAATTACA	CAGCCATGTG	CCCTTGTTTT	CAGTCCCTGA
17401	TCCATTATCT	TTGGCATTTA	CTGCAAAGAA	GCTGCTGTTA	CGCAATGGAA
17451	ATTTAGATGA	TCTCTTTTTT	TTAGCTTACT	TCTCCTCTAA	CCCAAGAAAT
17501	GAGTACAGTA	TAGCCTGCTG	AATGCAAGGA	AACCTGCACC	TGCAAACCTT
17551	TCTCCCCACT	GCGTCACTAC	CAAATATGTC	AGAGTTGCTT	GTACTTCTTA
17601	AGTCTGTTTC	CATCCCCTAA	TGGCACGAAC	CGTTGCCCTC	CTGTTGTGAG
17651	ACTGCAAAAA	GGCCAGCTTG	TACAGATTTG	CCCTGTAGGT	TTGAATGGAA
17701	GAAGGGAAAA	AAATCAGAGA	AACTGCCAGC	TTTTGTTCTG	CCGCTTGTA
17751	GCTTGCTTTG	GTAGAAAAGT	TGAAGAAATA	GGAACATGCT	TTGAAATAGG
17801	ATTTTAAAAAG	GAATCAGCTT	CTTATCTTCC	CTTTGGGAAA	AAATAGTGTG
17851	AAGGACAGAA	TAAATCAGAC	GGAAAAAGAA	AGAAATTGAC	GTAAGAGAAC
17901	TAGTCGGGCA	GAAAGGAGGA	GGTGGAAAAT	ACCCAAAAGC	AGCAGGAAAG
17951	AGGGAGGCAC	AGGTTGCCAA	TTAACACTTC	GATCAAAGGA	AAGGCCCGAT
18001	CAAAACCTTT	TTCTCCTCT	AAGAAGCATC	ACCCCTTCCC	ACTGCTTACT
18051	GCAATGAAGC	GAGCTTTTAG	ACTAAGACTC	AAGAGAATAA	CCCCAATACC
18101	AGTAAAGCCT	GCAGAACTTG	TTTTTTTCAT	AGCTGACACC	ACAGACAAAC
18151	AAACAAATAA	ATAAATAGTA	GCGCAGAGCA	TCAGCACCGT	GGCAGTCATT
18201	CCAGCAATCA	CTTCCCCACC	GTGCTCTCCT	ATAGGAGAGC	TGCAGCACAG
18251	GTCAGCGTCT	CCCAACCCGT	GCACTTCTTC	ACGGACAGAT	TTGCATCATG
18301	CAGACCCTCA	GATTGCCCGA	GAAGAACAGA	ACTGCAATGC	CCAGAAAGAG
18351	TGTGGAAGCT	CTGAGAATTT	ATCTGCCTGC	TGGACAGAGC	CCATCTACAC
18401	CTGGAACAAG	CGGGCACCTC	TCTGTGCTAC	CAGTGCTGGG	TAAAGAAAGC

18451	TGTGCAGCAG	CTCCTCCCTG	AACACTGGCT	ACGTTGTGAC	ATCAGCCCTG
18501	TGGTTCCTGT	GGCAGCTCCT	GCGCTTCTGC	AACTACATGA	GTCTAGCTGG
18551	CAGGCCACCT	GCTTGTTTCC	ATATCAGCAG	CAGCCACGTG	CACCATGTGC
18601	ACCATGTGCA	GGGGGCCTCC	AGGCAGGTAA	AAAAAACAAA	CAAACAAAAA
18651	CATCTCTTAA	TTACAGGGGC	AGAGCAGGGC	TGGATACGAA	CAAACAAAAC
18701	CATACCAAAA	CAAGCACACG	TGTAAAGAGG	AAAAAAAAAT	AAAATAAATC
18751	ACAGCTTTGC	AGTTTGTCTG	TCTTCAGAGC	AAATCAAGGC	TGTGATTAAT
18801	TCGTTACACA	TCAGAACTCC	AAGCAGGCTC	AAGCTGAGCC	GTTGCAACTG
18851	GCATTATGAA	TGGCACACTT	GAAAAACAGC	CAGGTTGCTT	TCCAGATTCA

CR1 - GG

18901	TGGAATCATA	TCATAGAATC	ATAGAACGGC	CTGGGTTGAA	AAGGACCACA
18951	ATGATCATCG	AGTTTCAACC	CCCCTGCTAC	GTGCAGGGTC	GCCAACCACC
19001	AGACCAGGCT	GCCCAGAGCC	ACATCCAGCC	TGGCCTTGAA	TGCCTCCAGG
19051	GATGGGGCAT	CCACAACCTC	CTTGGGCAAC	CTGTTCCAAG	ATGTTAGCTT
19101	CTCTAATCAT	TTACCACAAC	ATAATAATGA	AAGAATATT	AAAAAATCCG
19151	TGATGGGTAG	GAACCTCCTG	GCTGCAGCCT	GTGCTCCAGC	CCTCAGGTGG
19201	TGGAAGGAAA	TAATCATTTT	TAGTTGGAAT	TTTCATTTTC	TTTTTTTTTT
19251	CCTCAGCTTT	CAAGTAGGCA	AACAATTCAC	TTGTCTTCCA	GAGCTCAAAT
19301	CACTGCTGTA	AGTAACAGTT	TTCATTTGTC	ATTTTTATTT	CCTCTGTGAG
19351	ATGGTGATAT	TTATAGCAAC	ATTCTCGGTC	CCTTGCTTGG	ATGACTTGTTG
19401	ATTGCTACGG	TTCTTGTAAC	AGCATTGCCA	GAACAGTAGC	AAAAGGCAAC
19451	TGCTCCAGCA	CCGGTTTTTG	TAAGCCATTA	CCTGTAGACA	CTCATCTGCC
19501	TACAGTAGTA	TGAGTCAGTG	GAAATTAAGT	TTTATAGTTT	ACAGACCACA
19551	TGTGACACCG	AGCATGTTTG	AAAGCAAAGT	CCCTGCCTTG	AATAGCTGAG
19601	ATTTAAATTA	GCTGAGGCAG	CAGAGGAGGA	GGGAGGGCAA	GCAAAAGCAG
19651	GTCTTGCCAA	TCCATGGCAT	GGTGCCTAGT	GATAGGTCAC	CAAGCAGGAA
19701	AGAAAACCCA	ACCCTGGCTT	CATTATCAAC	ATCAGGCCTA	TGCTCAGGTG
19751	CCCGTCACTT	ATTTCCCTGAG	AAGTCTCAAA	ACACGACCAA	CACCTGTTTTG
19801	AACTCCTATA	AGAGAGCTTA	GCGCCTGCTA	TGATGCAGGT	AGGATACTGA
19851	TGTTTATTTT	CATTACTAGT	GCGTGACACA	TCCAAAGAAA	TTAGCTGTAA
19901	AATGTCTAGT	ATTCCTGCAA	AAGAACGTAA	CAGATCCTGC	ACGTGGCAGG
19951	TACCATGCAC	AGATGGCACC	AACGGATGGA	TGCTGGCTTC	CTCACACGTT
20001	GAGTTGTTGT	GGAGTTGCTC	TGATGAAGGG	GAGCAGCATT	TGTGAGCATT
20051	CATTCATGGA	GCTGGAGTCT	CCTAAGCAAG	GTAACGAATG	CAAAGGTGGG

CR1 - GG

20101	AGTGTTCAAG	TGGCCTAGGC	AGGCTTGGGC	AGTGAGCCCA	GGTGAACCTC
20151	ATGAAGTCCA	ACAGAACCAA	ATGCAAGATC	TGGCCTCTGC	ATTGAGGCAG
20201	CTCCCACTAC	CAATACAAGC	TGGGAAAGGA	CTGAGTGCAG	CCCTGCTGAG
20251	GAAGACCTGG	GGGGTATTGG	TGGTTGGGAA	GCTGGACATG	AGCCAGCAAT
20301	GTACCCCTCAC	AGCCAGAAA	GCCGACTGTA	TCCTGGGCTG	CATCAAAAGT
20351	AGTGTGGCCA	GCACAGCAAG	GGAGGTGCTC	CTGCCCCTCT	ACTCTGTGCT
20401	GGTGAGGCCT	CACCTGGAGT	ACTGCATCCA	GATGCGGAGT	CCTCAGTACA
20451	GGAGAGACAT	GGACCTGTTG	GAGCGCATCC	AGAAGAGGAC	CACAGAAATG
20501	TTCTATGGAA	TGGGACACCT	CTCTTACAAG	AACAGGCTGA	GAGAGCTGGG
20551	GCTGTTTCAGC	CTGGAGAAGA	GAAGGCTGTG	AGTTGACCTG	ATAGCAACCT
20601	GGCAGTATCT	AAAGGGCAGC	TACAGGAAAAG	AAGGGAACAG	ACTTTTTTAAG
20651	CAGGGTCTGG	TGTGATAGGA	GAAGGGGAAA	TGGTTTCAAG	CTCAAAGAGG
20701	GAAGATTTAA	GTTAGATATA	AGGATAAAAT	TTTTTACAGT	GAGGATGGTG
20751	AGGCACTGGA	ACCCAGCGTT	GTGGTTGAAG	CCCTGACCCC	TGAGACTTTC
20801	AAGGCGAGGC	TGGCTCAGGC	CCTGGGCACC	CTGATCTAGC	TGTGGTGTCC
20851	CTACGCACTG	CAGGGGAGTT	GAACCTAGATG	GCCTTCAGAG	GTCCCTTCCA
20901	ACTGCAAAAG	TTCTGTGATT	CTAGTAAACA	GAAAGCGTAC	AGAACAGTGA
20951	CCTAGTCAAA	AATTGACTAT	CGAAGGGCG	TGTGGGTAGA	GGTAGGCAGG
21001	CAAAACTGTA	ATTAGGTCAA	AGAAAAATGA	CAGGACAAGC	TTATCTAATA

21051	TTTGGGATGT	CAGTAGCCAA	ATGCCAGTAC	AGAGGATGAA	CAGCAACCAT
21101	TAAGAATTTT	TTACACAGGT	AATTCTGACA	ACAGAGAATT	TGGGGAGTAA
21151	TAATTGAAAT	ATTATTGGTA	AAACGGTATT	TTTAAAGAAA	AATCAAGGTG
21201	AGAGCACAAT	AGCTACAACA	TAGACTACCC	GCTCAAGAAT	AGAAGGAGCA
21251	ATGTTTTGAT	AATAATAAAG	TAGCTGTTGG	AAAAGCAGCA	AAATTGGAAG
21301	CAAACAGTCC	ATCAAGTGCT	TGCAATAGGT	TATGTAAGTT	GTGTGAATGG
21351	CTCTAAGTCA	GCCATGATTA	CTAGGATGAA	TCTGGTTAAG	ACAAACATGT
21401	ATGGAAGCCA	ACCATGAAAC	CACGGTCATC	ATTCTGGAGG	AAGGAAGAAT
21451	TATGCAGCAA	AATCAAGGCA	TTCTCTGCATA	TTTCAATAAT	TCAGAGCTAT
21501	TAAAAAGCTC	CCTGTCACGA	TAATCTTCAG	AAATAATGTG	AAAAAATAC
21551	ATAGCGGAGC	AAATTTTTCAT	TAGGAAGACA	ACTAAATAAA	CACAAAAAGT
21601	AGATCAAAAC	ATGGCTCAAC	AGAATATTTA	AAGCAGTTTC	TTTGCTTCAG
21651	CTGCCAAAGA	GCAAACCTACG	ATCAGGTGCA	GCTGACTGAT	AGGAGCACAA
21701	AAGCTGATTC	AAGGGTATCT	GCCCAGACGA	CGTGTGCGAC	TGTTCTGCTC
21751	CACTCATATA	AACAAAAGCA	GCCAACTCAA	CTCTGAAGGC	TAGTAGTTGA
21801	ATAATAATAA	TAAAATCAAA	ACCAAACAAA	CCTTACCAAT	CTCTAAGACA
21851	GACAAAACCA	GTACTTAAAC	CAGGGAAGGG	ACAGAACTCT	GGATTTCAGAG
21901	ATTAATCAGG	TGACGTGGGC	AAAGATACAG	CCAGAGAATT	TAATGAGTTT
21951	TTCTAACTCT	ATGAAAATAT	GTGTTGAGAA	AATCCACTGT	TAGTCAATGG
22001	GAAGAAACAT	CTGTGAAGAA	CAAAGCAAGC	AAGCACAGAC	ACAACCTGATT
22051	TAAAAACTAT	TTTACCCACA	GAACATAATT	TTTCATACTG	CAGTCAGAGG
22101	TAGCAATAGC	ACTAGAAGTT	AGGAAAAAAA	CGTAGGCCAA	GTAGTCAAAG
22151	ACTAGTCACA	GCTGGCAGCA	TGAAAAGATAT	GCAAGTAATT	TATCCAGTGC
22201	TTAGAGGCTG	TGGTTATATA	AAGCAAATAT	AACCTTTAAT	CAACTATAAA
22251	CCAGGCAGCA	TTGTTTAGAG	TACATAGGTT	GCTCTGAAAG	TAACGCCTCC
22301	TATTTATTTT	CACAGAAACT	ACAACTGATA	CGAAGAGCAT	AACAACACTG
22351	ATAGACATA	TTCCCAGCTA	CAAAACACTA	CTTTTCAACT	CAGTCACTAC
22401	GATTAGCTCT	GCATTTTTGC	CAGCGATGAG	TGAGAGCCTG	CATGCTACGC
22451	GCACAGAAAT	CTGCACCAGT	GGAGGTGCCC	CACCGTCACT	GGTGCTGAAA
22501	TGCACCACCC	ACTGCCTCAC	CGCGCTCACA	TCCACTGCTT	GGTCTCCATA
22551	AATATTCAGC	AAGCATTGAT	GAATGTCAAG	AGGTGTAATT	TTTTCTGTGT
22601	GGAGGAATTC	AGTGACACCT	CTGCTTCATT	TGCGCTTCCA	GCCAAATGCC
22651	ATTCTGTCAT	GCTGCCTCTC	TGCTGCCATC	TGTCGCACAG	CCAGAGCACA
22701	TAATGGAATA	CTGGTAGGAA	GGTTCAACCA	CTACCGCCAT	ACCACCAATG
22751	ACACCTTGGG	CTGATGATAT	ACTAAAATAA	ATACTACCTT	TGGGGTAGCA
22801	CTCATAGTTT	AGGTAAACCC	TGAAAACCTGA	AGTAAATGAC	ACCTCCCCCT
22851	ACCTCCCGCA	GCCATTTAGC	TACATCTTCT	GGGATAACTT	AGCTAGGAAT
22901	CTGTGATAAT	ATTTCAACTT	ATCCTCATTG	TAGAAAAACA	GCAGAACAAA
22951	AGGTATTCCT	TAGAGCTGCA	GTTCTAACCG	GCAGTGTTTA	TTTGGAATAT
23001	TTCTAAAAAC	AACTTGAAAC	ACCAAACATT	AATGTTTCCA	TTTCCATGAG
23051	CAAGTAGCGA	GATGCAAGTT	TAAAACATAC	AGTATATTTT	TCTACGTTAA
23101	AGATAAGGGA	TTACACAGTT	AGGTTTAGGG	AAACCCATAG	GACAAACTGA
23151	CCTACGACAA	CAACAAAGAA	ACGCATTTCC	TGAGAATTTT	AAGATTGCCA
23201	TAAGGACTGT	CATATAGGAC	TGTTATAAAG	GTCAATTAAC	AAGTAATTCA
23251	GGCAGTAGCT	TCAATCCTCC	AGGTGAGAGC	CCTGCCAGTG	CGTGGCTCGC
23301	TTCTGAAGTG	TTCAACAGAG	GCAACAGAGC	AAAGAATCCT	GCTGCAACTA
23351	AGATCAAGTT	TACAAACCAC	AGTAACTTGC	ATCTACACTT	GAATTTCCCC
23401	CGCTTGCCCA	CAAAGGTCCA	CAAAAAGATT	TGCAGCCCCC	TGAATCACAT
23451	TCACATTTTC	CAGTGCGAGA	CCGAAGTAAA	GCTGCAAAAC	TGAATGACTT
23501	TGGAAAGAAC	ATTTCAATTAT	GTTAGCAAAC	AAAAGCTCAG	CACCTTGCCG
23551	ATCAAAGAAT	TTGTATTTAA	GTGTTTTGTT	TAGCTGTCAA	ACGTAGAAAC
23601	AAAAGTCTAA	ACAAAAGTGA	TAGTTTTGAA	AGTAACACTG	AAGAAATACT
23651	CAAGAACATA	ACTGATGTTG	TACATTTTAC	TTCAATTTAAG	TACAGCAAAT
23701	TTCAACCATC	CTATGATTTA	TCGAGTACGC	AAAATATGTA	CATAGAGGAA

23751	ACCAAAACCC	ATAAAAAGAC	AATCATCTAT	GTGCATATGC	GCATGTAACA
23801	TATGCACATG	AAATGTGCAA	TTTTCTTTTA	ATGCAAGTTA	AACAAAGCAT
23851	ATGCACAACA	GAGTTGCACA	ACCATTACAG	AACAGAGTGT	TCTGGGTATC
23901	CTCATGATGT	TTCGCATCTA	CAGCCAGTGC	AAACTTACAA	GGCACAAACT
23951	CAGTGCTGAC	ACCGTAGTGT	TGTAAGTTCA	GGCACATTTT	AATTTGTAGT
24001	TCTTAAAGAT	AATAATCAAC	AGAAGTGCTA	CTTCTGTACT	AAAGTGCCAG
24051	CCTCTTCCCA	AAGATTAAGC	ATTAAGTTGA	TGTAACCTGT	ACACAGTAAT
24101	GATCAGCGGC	GTTTCGGATTT	AACCTAACCT	ATCACTGCAA	GGTCTGTGGC
24151	TATATCGTGC	TATGCGCTCC	ACACCTCTGA	GGGTATGCTG	CTTCCCAAAA
24201	TGCCTCCCTC	ACACTCTTCA	AAGACTACCC	ATACCTCGCC	AGCCTTGACG
24251	CGTGGAATCT	TACAGGTTAC	TACTCAATGC	TTTTTCCTAA	CCTTAGCCAA
24301	ACCTCTGATA	AAACCAGACT	TAAAAAATCA	GCCATCGGGA	AATCTTTCGC
24351	ACACTTGCAAT	TTAACAAACC	TTTGCTCAAT	TGCATAGTGA	CATGTGTATC
24401	AGCTAGGAAA	GAATTAAAAA	CAAAAGCTTG	CTGCTTAAGG	CAAAAATTTT
24451	TAACACAGCA	CAGCAGAAAA	AGCCAAATAC	CGGGTTCATC	AGTATTTAAA
24501	CAAAGCACTG	GCTCATAACG	TCTTCTCCTC	ACAGTGTTTT	CTTCCTTACT
24551	TTACACAGCA	ACACACACAG	TATGCTCAAT	TAGCAAATTT	TGTTGCATTT
24601	CTCTAAACGG	AGTGATTAAC	ACATAGGCTG	ACTGCTACTG	AAAACACCTG
24651	ACAAATCGCT	TCTCTTGAC	CCTCAAAAAA	GGGTTTCTTT	TTGAGCCTAC
24701	CAGAAGTTGA	AAACCCGCTT	GCGCCAGGT	CTAATATAAC	AGCTAAAAC
24751	GATCATTTAA	AAATTACAAA	TATTTACCAT	GAGTTGCCAC	ATCACTCTGC
24801	TAAAATTGTG	TTTTCCGTAT	TATTTTCCAA	TAGAAGACAT	TTAATAGACA
24851	TCTGAAGAAA	ACAATACAAT	ATAAAAGCGT	AAGGGTCTTT	GCAAACAGAT
24901	CTTCTATTCC	TTCTGCAAAG	TAAGAAAGGA	GAGAGTTTAT	TGGCATTTAT
24951	TTGCAGTGCC	ATCGATAAAG	ACACGAGAAT	ACTTAAGAAA	GCAAAGATT

R gene exon 9

25001	CTAGTGATCC	ACAGACATCT	TTGGCTTAGC	CTTCCTGACC	AAAGTCTTCT
25051	GTAAACTTCT	TTAACTTCTC	CAGGTCCTGC	TCATTAACTG	TTGGCTTTGT
25101	GCTAGCTAGC	GACCTGAGCA	TATCGGCCTG	TGAGAAAGAA	AGCAAGAAAA
25151	CATGCATTCA	GAAAACGTAC	CGCTGCTAAC	AGTATTGCTG	TGAAGAAAAG
25201	TAAGCTTTGA	AAAGCCTTTT	AAAACAAGTT	GACTGTAGGA	ACTCTTATTG
25251	AAACAAAAC	TCGAGTAAGC	CTGAACATTT	CTGCACGTGG	ACCACTTTTT
25301	AACCTCCTGA	CGATAGACAA	TTAGTGAGTT	TTTACAGGAC	TTAAGCCACA
25351	ATCTGAGGTT	CAGCTTTAAA	ACAATTCATC	CATTCAACAA	GTGTTATCTA
25401	CCACTGCTTA	CTGCAACAAA	CTGAGCTTCC	CATCTTACAG	ATTTCGTATTC
25451	CAATTCACTT	TTAAGGACAT	CAGGTTGAAG	TGGAAGAACCA	TCACACGTTT
25501	CCACATATTC	CAATGCCCAC	CAACACAGAA	TACTTCATCA	TTGATCTCCA
25551	GCAAAGTTTT	ACTGCTCATG	ACTGCTAACT	TCTGTTTCTT	CAGCTCAGTC
25601	AGTTTTGTAT	ATTTACATTT	GGCTACTAGA	AAATGGAGTT	CAGAAAAAAA
25651	AACCACAGAG	GTATGAATCT	AAATTCAGCA	GTTAAGAAAC	CTTATTTAAA
25701	AAAAACGTAT	ATAAAAAGTC	CTGGCCAAAG	GCAAAGCGAG	GAGCTGCTCA
25751	ACACCTCACG	TTACTATAAA	AGCACAGGGT	TAAGTTAAAG	TCAGCATCAT
25801	GATTTTCTAG	GCTTTCTCAT	CTCATCGTAC	TACAGACATC	CTACTTAGAA
25851	AGAATTCAAG	TCTGATCTTT	TTAATGACAA	GAAGTATTC	TGGACTCTGA
25901	AATAAGTCCC	TGTGCAACTG	TAGCACATCA	GAGTCTACCT	TCCATTAGAA
25951	GCACTGAAGG	AATTGTATTT	AATTCCAGGA	AAGACTGATG	AAAAATCCAC
26001	TTAGTTTACA	CAGGCAGAAG	TTTTAAGGCA	GGCCTGCACT	TGCTTGCACT
26051	TTTTTCATGCC	TCCTCCATGT	GCAAAATATG	AGATATTTCT	CTCCTCAAAC
26101	TAGTGATGGT	TACATGTGCA	AAGCAGTGCA	CTCTACTTTA	GAGGGTTTTT
26151	GATCCCTATG	CAACACACCT	TCCTTTCATT	CATTACAGAA	ACGTTTGCAC
26201	ACAGGAATGG	CCATCAGCAC	AGATCTGATA	TCGAGTCCTT	CCTTCAGACA
26251	ATGCAATTAC	ATTGCAACC	TTTTGCTGCT	TGAGGGTAAA	ATATACGAGT
26301	GCTCAATGAT	TTGTAACCTT	TTAAACAATG	TATTTAAACT	TCAATTTCTC
26351	TCAAATATGA	TGTTTTGGTC	TGTAGACAGA	AGCAAATATT	TTAACATATA

26401	CAAAAAATTC	CAGCTGAATG	TTAGCAAGAG	CTGGCTGCAT	CATCTGTGAT
26451	GAAGTATAAT	CCAAACTACC	ATTGCATCCA	CCAGCTTTTT	ACATTGCATT
26501	GGTTATGCTT	GCATTTCTTT	TGTGGGCAAA	ATTTACCTAC	AGCATGTTAT
26551	TCCCAGTTTA	CAGTGAATAT	AATTTCCAC	TTCTCGATGT	CAATAATAAT
26601	GCTACAGAGC	AACAGGAAAG	TAACATATCG	TGGGGCAGGG	ATTCTGAAGG
26651	TTTTAAATGA	ATAAAAGAAA	AATTAAGAA	GGGAGGAAGA	TTCAGGTGCT
26701	GTCTATACTG	CATGCCACTA	GACAATAATA	AATGCTTATC	AGGGATGGAG
26751	AGCTGGCTCG	CTGATAAGCA	TGTTGTATTG	TCATGCTGTG	TGTTGCGATT
26801	AAAATGTCAT	CCAGTATGTC	CAAGCATGTC	TAAAAACAAA	GGGCTCAGCC
26851	AATTGCCTTG	CATGCTGGCT	CTAAAATGTC	TTGAGTATTT	TCAGGGTTCT
26901	GCAAAGCAAG	AAACACCACC	AAAAAATAAA	AAAATAAAAA	CAAATACCCA

R gene exon 8

26951	CCATGGAAAC	TTTAGGCTCC	AGTAATTTAT	CCCCTGGAAC	ATCCATCCAT
27001	GTCATTTCTT	CAGCTTCAGG	ATCACCTGGA	GAGCAAGGAG	TGAACAAATC
27051	TACCATGATA	TTTGGATTCT	TCACCTGATG	TCCTTTTACC	TAATAAATGA
27101	ATACATAAAT	AAATAAAATA	AACAAACTGA	AGCTGAACAT	CTTTAGAGCA
27151	AAAGCATACT	CTTAATTTTC	TGTACATGCC	CCACCCGTTT	GGAGTTGTGT
27201	AGTGAAGTGG	AATTGTGTAA	AGGTGCTGGC	ATCGTTCACT	TGAAAACGC
27251	ACAGCAGTAG	TCAGATACTT	GAATCATACT	CATGTCAGAA	CCAATGAGCC
27301	TTTAAGGTAG	GAATGCTTGT	AGAAAGCTAA	TGTGCCAGGT	CTACTGTTTG
27351	GAGAAGACCA	CTCTCTTCTT	AGTCCTCAGT	CACTTTGGGA	GTCCATTACAC
27401	CACTGGTTAA	CATTTCTAAA	AAATTCTCAG	TAGTTATTAC	TGACTGACCC
27451	TCAAGTTGGG	CTGCCATGGG	TGTCCCTTTA	AGCTTCCACT	CACTGCACTA
27501	AAAAGTTCCG	GGCACCTTTT	CTGACACAAT	CTCTAACAGC	ACTTGATAGA
27551	AGATGGGGCC	ATCTAGTGGA	GGAACAGAAA	CCATCCCTTC	TTCCAGATAC
27601	ATAGACAGAA	CCTGAAAAGC	TCCATCAGCT	GCCTCTTATC	TTTTTGCAAT
27651	GCATATCTCA	GACCTGTAGT	TCTACCATCC	TTCTTTTGTC	AGTCAGTAA
27701	GTATCACACA	TCCCCATGAA	CACAGAACAC	ATGCAAAGGC	GAAAAAGAA
27751	CTGCTTTTAA	CAGCAGAGAA	CTGGATTGTC	TGTTTCAATC	TGCTTTTAAA
27801	GCACAGCGAA	GAAAAGCATG	GATTATAATA	CTGGAAACTC	AACTTGGACA
27851	AACCGCTATC	AATAGGCTGG	AACAAGCAAT	GGGTTACAGT	GAGTTACAGA

CR1-GG

27901	AATTGAGCAA	AACGCTACAA	ACAGGAGGCA	GGGGCAGATG	GCGATTGGGA
27951	CAAGGGGGAA	TAGTTTAAAC	CAACAGAGGG	GAGATGTAGG	TGAGATGTTA
28001	GGAGGAAACT	TCTTACTCAG	AGGGCAGAGA	GGCGCTGGCA	CAGCTGCCCA
28051	GAGAAGCTGT	GGTGCCCCAT	CCCTGGAGGC	GCCCAAGGCC	AGGTTGGATG
28101	GGGCCCCAGG	CAGCCTCAGC	TGGTGGGGGG	CAGCCCTCAC	CATGGCATGG
28151	GGTTGGAGCT	GGGTGGGCTT	TGAGGTCCCT	TCCAACCCCC	AACCATCCCA
28201	TGATTCTATT	TAACTGGGAC	AAACTGCTAC	TATGGAAATA	GTTAATAAAG
28251	CAAAGGTTTT	TCTTATAAAA	ATAAGAATCT	GCATCCAATT	AAAGCACAAA
28301	CAAAACAAGT	GGAATAGACT	TGCATCAGAA	CACTCAAAGC	ACGGTAGGCT
28351	TTTTTTCCTT	TTTGGCAAAA	GAGGTAAGAA	TTGCCTTTGG	CTGCTCTGCA
28401	AACTGTGGTA	ACTGAGATTA	TTTCATTGTT	CTGTGGCAGG	CTGAGGCACG
28451	CCTCAGATGT	CTGCAAATTT	CAATGAAAGG	CTAAAATGTG	ACAACCCATT
28501	GGCCAGAAAT	GCCATCATTG	TATAAAAACA	ACAATGGATA	AATACTTCAG
28551	GCATCACTGC	TTAAGGGAAG	GAATAACCCA	GAAAATCCCT	GATATATCAA
28601	AATAGCCGCT	TATTTTTTAA	GCAAATACAG	TTTACAACAG	CTCAAAATAC
28651	TGTTTCAAAA	TGTTCTTTGA	TTTTAAACTG	GGAAAAGTTC	ATCAAAATAC
28701	CTACCAAATA	TTCTTCCTCA	CCACCAAAAT	TACAGACTGC	TGGCGTATTT
28751	TAACAAGTTG	ATAAGGCTTC	CTCACTGCAA	GCACTGGAAC	TTTAACAGAT
28801	CTCTTACATT	CTGAACCATA	TTGTATTTAA	GCGTTCCTTT	CCCTTGGTGT
28851	CTTAAGCTGA	ATGTGTTCCCT	TACAATTACA	TGGAGAAAAG	TGCCCACCTT
28901	CAGTTCACAC	TGACTCTAGC	TGTTTCACTG	AGGGCTCTGG	ATGAGTTACT
28951	GGTAAAAAAC	TAAGAAACTG	TCATCATAAC	TCATGAGCAA	CAACTGCTGC

29001	CAACACAAGT	TGCGTGTATG	ACACGCAGAG	CAATAAAATG	AAAGCTCTGA
29051	AAGCTTCCCT	TTCCAGAGTC	AAAAGTCCCT	GCAGATAACA	AGAATCCACC
29101	TTCACCTGAA	GTTTGTGAAT	TTCTGTGAAA	ACAAAGTCTG	CAGTACAAAT
29151	GTAAACAGAT	TATTTTAGTT	TCGCTCTCTA	AAACCAAAAC	AACAGCAAGA
29201	AAAAACTAGA	CAAGAAAAAT	ACTATCATGT	TATTTATAAA	ATGTAGGCGA
29251	AACTCCAAGA	TAAGCAAAAA	AAAAAAAAGTC	TTATCTATCT	ATAGTTACAC
29301	TCTTTT TAGA	CATCAACTAA	GTGTAAAGTA	GTTTTCACTC	TACAGCAGCA
29351	TCCATAAGAT	GTTCCCTTGCT	GCCCCAGCAA	TGACAACGAC	CTTACTCAGC
29401	CGTCTTGCAT	CTTAACTACT	GTGACAAGTA	ACATTAGGGG	ATTCAATTTT
29451	TTACTGGAAT	CTTAGGATAA	TCTTAATTTT	ACAGTTTGAA	GGACATCCTG
29501	AGCAAACAGT	TGTGCAGTTG	TAATTCCTCT	GTTCCACGT	AGATAAGGAA
29551	TACGTTTATT	TACACACATG	CGCTAGAAAA	ACAATTACGT	AATTTGATAT
29601	AGAAGAAGAG	CACCACTGTA	AGACTCCGAT	TTAAGTTGAA	CTCCAAACCG
29651	AATGCTTTTA	ACAGCAGTTA	TAGACGTGAA	GATTGATTAG	AGCTTGGATT
29701	ACACAACATG	AATACCTAGA	GATGAGGTGC	ATCAACTTAT	GGCAGGAGTA
29751	CTCCTTTGGT	AGGTAATGAA	GAACAGCATA	CACACATCTG	TAAGCACACG
29801	GTATTACCCC	AAACCGAACT	TGGCTTACTT	ACAACAAGTT	TTCAGATCAA
29851	GTTAATTCTC	AGAGTTGAAG	CAATATGAAA	AACGTTTTGT	TTTTACTTAC

R gene exon 7

29901	TTTTTTTAAAG	TGAGTAGCTG	ATTGCACTTT	TCTAACAGGT	TGCATCAGTG
29951	CATCGCGTAC	AATGATGCTT	ATATCTGCAC	CAGAATAGCC	ATCGGTTCTT
30001	TTCCCAAGCT	CCCGATAATC	TGCTTCTGTT	AGGAGATTGG	GAGTCGACCC
30051	GAGGTGAAGT	TTGAACATGG	CAGCCCTGGC	ATGGTCTTCA	GGTAAAGGAA
30101	TATAAATTCG	CTTCTCAAAC	CTGGTTTCCA	AAAGATAAAA	GCACTGGCTC
30151	ACGCAGGTGC	ACGATGGAAA	GAAGTTTATG	CAAATCAGTA	TATACTTTGT
30201	TTGTAAATGA	AACTGCTTTT	TTCTTATGTA	TTATAAATGT	TTAAAAATAT
30251	ATATCTCAGA	TATTCTGCAG	CCTGTTCTCA	TAAGTAATAC	CATGGCTATC
30301	ATAAGCTAAC	ATCTACAATT	TAACAACGAC	TTCCTTTTTA	TGACAGGAAG
30351	TCTCTTCAGA	CTGTAGTTTC	TCCAGGTTCA	CTCCAGAGAA	GTTTGTTTTA
30401	AAAGAAAATA	ACTGAAGGAA	AAGGAGTCTT	TTAGTTTTTA	AGTACATCTG
30451	AACAGTTTTT	ATAGAATCTT	AGAATCGCTA	AGGTTGGAAA	AGACCCACAG

CR1-L

30501	GATCATCCAG	TCCAAC TATT	CACCCATCGC	CAACGGTTCT	<u>CACTAAACCA</u>
30551	<u>TGTCCCTCAA</u>	<u>CACAACATCC</u>	<u>AAACATTCCT</u>	<u>TGAACACCTC</u>	<u>CAGGCTCGGT</u>
30601	<u>GACTCCACCA</u>	<u>CCTCTCTGGG</u>	<u>CAGCCCATTC</u>	<u>CAGTGCCTGA</u>	<u>TCACTCTTTC</u>
30651	AGAGAAATAG	TAGTGGTTTT	TCACACTCAA	AGAAAGAGCT	GCCCGATAAC
30701	ACGTTACACAC	AACCAGTTTC	TAAAGTTTGT	AAGTAGAGAA	CGTTGTAGTT
30751	GGAAACGAAT	TTGAAGTCTT	ACTCTCAATA	TAGTTGTTGG	TAGGAATGGT
30801	TGATACTTGC	GGTGCTTCCT	TTGAAGCATC	TGTTCTCAAA	GAGAGGACGA
30851	CCTCCCATCA	GGGAAATAGG	ACCGACTCCA	AGTTCTGTAG	AACACTATTA
30901	ACTTCCTATA	GGTAAGTGGG	CCCAAGCCAT	GAAAAATTAA	TTCTGTTACT
30951	GCCACGCTCT	ACAAGCTCCT	TTAAGTTTTT	CGGACAAGAA	TGAGAGATAC
31001	TCGTTACACAC	TGCAAAGAAT	GACTTGAAAT	GTTAAGTACC	ACATTCGCCT
31051	CTTATTCTCT	GTATGAAACT	ACACATGCAC	AGGATGGAAG	CGACCTCTGG
31101	AGGCCACATG	GTTTAAACTC	CCCAGTCAAA	GCACGGTCGA	GTTGAATTAA
31151	GTACATCGAT	AAAATGACAC	TGTCACCAAA	AAGGATTGTT	TCTTTAGCCT
31201	ACAAAAATTA	CCATTATACA	GGTTGTATCA	TCATCACAAC	ATAATCACAT
31251	TTGTACAGTA	ACTGTGTTTG	TCCTTTGCTG	CTCTGCAACT	GAAAGATCCA
31301	GCTAATCAGA	TACAGATACA	AACGTCATCC	CATTAGAGAA	AGGCAGTTGA
31351	AACGTACACT	GAAAGATCAC	ACAAACTGTG	TGACCAGTAC	AGCAAAAACA
31401	ATGCTTCTGC	ATTACTTAAA	TTCTGTGAAA	TTACTCAAGC	TATCCAAGGG
31451	TTTGCTAAAG	TTGAAAACGA	TAGCTCTGCT	GCCTCTTACC	CTTCTGACTT
31501	GCTTATGTG	TACCTTGCCC	CCCATGCTCA	CCAGGAGACC	AGTCAGCAAC
31551	GAAACACAAG	TTTTTTGCTT	AGTCAAGTGG	AATTAGCTGA	CTAAGAGATC

31601 AGACAGACTA CAAGATATAC ATAAGAGAGA ACAATCCACC ACTTAAGTGA
 31651 AGGGGATATT TGA CTCAGTC CACCTCATGA GACATGCCTG CAAGAATCAA
 31701 GTGGATCACT CACTCAAATA GCCTCAGGAT GAACCCTCAC AATAGTTGCA
 31751 AATTTCTTAG CATAAACATG AATACATCAA TCATAGGCCA ACATACCTTC

R gene exon 6

31801 TCCTGATAGC AGAATCCAAA ACCCAGGGTA TGTTTGTGTC TCCTAAGACC
 31851 AATATTCCTT CATTATCAAC ACCAACCCCT ATACCAAGGA AGAAATCATT
 31901 TCACCATTTA GAAAATAAAC AGAGACTGCC TGATAATGTT TTAGAACATT
 31951 TACAAAACGC AAGGGGGTAA AGCTGCACAT CTTTTTCACAT GTAAGCAATG
 32001 CATTTTATGC GTAGCTGAAC TCCTTTGATT CTGAAAACATA TTAAACTTAC

R gene exon 5

32051 CTTGCATCTG GACTAGAAAT TCCGTTTTAA TCCGTCTAGC AGCCTCGCTT
 32101 TCATTTTCAC TTCTTGACCC ACATAGTGAA TCTATCTCAT CAATGAAGAT
 32151 AATAGAGGGC TTGTTTTCTC TGGCAAGCTG GAATAGGTTT TTCACTAATC
 32201 TTAAAAAAGG AAACAGCTGC AGTTATCTTA TTGTACACAC AAGCAAAAAC
 32251 ATGCAACTTT GGATTATGAT ACAGTGA CTT TGTTAAGAAA AAGCTAAAAG
 32301 TAAAAAATAA AATGAATCCC ACATAAGATA TTAACAAAGC TACTCAAAGA
 32351 TACAACATCC CTTCAGAACT ACTAACACAG CATTAGGCTG AGATGCTGAG
 32401 TGAGATACCA CAGAATAAGG TAAC TTTAGG CTTCCTAGTC TTGTTAACAC
 32451 ATCTCATTGT AACATGCAGA GTGGATATAT CAAAGGCGCT CATCACTTCC
 32501 AACCCATATA TGCCCATCTT TTATGTCTTC AAGATTTTGT TTGAAAACAG
 32551 AATGTAGAAA AAAAACCTTC ACACAGAGGA AGAAACAACA TGTATTATCT
 32601 GCAGGGCTAC TGCAACAGAT GAGCCAGAAG GTGACAAGAA TCAAAGTACC
 32651 CCAACACTTC AGACCACTTT GTTGTACAA CACAGCTGGG TTCAGAAGGG
 32701 CATTGATCAC CATTGTGCTG CTAATACCTT TGTCCAACT AGTTTTAAAA
 32751 ACAGTCTTGA GTGCTGAAGC TGCTGTAGCA CAAAATACAG TGCATTATGG
 32801 TACTTTTACC TGACACTGCA CTGAAGCAAA GAAACATCTA AGGTTTGCTT
 32851 TAACAAGACA CATGAACCTT CCTTCCATT AATTTCTTTA GAGTGTCCCTA
 32901 TCTAGCTCTG AAAAATTAAT TTCCTCTTGA TAATATTTTC CTGGAACCTC

R gene exon 4

32951 GGAAACTCCA ACTTACTTCT CACTCTCTCC TAACCACTTT GAGACCAGGT
 33001 CAGAGGAAGA TACTGAGAAG AATGTGGAAT TGTTGCTTC CGTTGCAACA
 33051 GCTTTTGCTA GATACGACTT TCCTGTTCTT GGAGGTCCAA ATAGAAGAAT
 33101 CCCTCTCCAA GGTGTTCTCT TCCCTGCAAG AAAGAAATCA GCTATCATCA
 33151 AAATGCTGTA TCAAGAGCAA GTCTATCTTT CTGATGAAGC CTCCCTAATG
 33201 TACTAAGTTT TCTGTATGTA CCTAAGAAAC ACCTGTCAGA TCGATCATTT
 33251 ACAGCTCAGC TGGAGCCTCT GATATAGCAG CATAATGCTC TTCTCAGACT
 33301 CCGCTTACAC TACTCACTTC AACAGCAGTA TTTAGAATGG GAAATAAATG

R gene exon 3

33351 CTGTAATACT GACCTGTGAA CAAGTGTGGA AATTTAATGG GCAAGATAAC
 33401 TGCTTCTTTA AGAGCTTCTT TGGCACCTTC AAGGCCAGCA ACATCACTCC
 33451 ATTTACATT TGGTCGCTCC ATAACAATGG CACCTATAAG AAAAGATTGG
 33501 ATAAATCACT GATACGTATT TTTCCACTGT TTGCTTACCA TATATTTGAA
 33551 AAAAGAAATC CACGTGTATG TTTACATTAA ATAAAAACGA GCCATTTCCA
 33601 CACAGATTTT AGCATCAAAC AGTGCTACTC AAATGGATAT TATTTCTACA
 33651 GAGATTTGGC AATCTTTTTT TCTTTAACCA CAATAAACCA TCAATAAGCA
 33701 GAGAGTTGTT AGAAGTTCTG CAGTGTGCAA ACTAACTCTG CAACTGCGCA
 33751 GAAAACATAC CAATGGCAGA TACAGAAGAG TACACTTCCT AAAAAGAGAT
 33801 CAACATGACG TACACCTGTA TGAAGCAGGC CCACTACAGT AGGATGCACA
 33851 GGAAAGCATG AGCAAACACC CTGCTGTGAG CACTCAGTGT AAAAAGAAAG
 33901 CCTGGAGTAG AGACCAACAT CAATCTGTAT TGCATCCAAA CCAGAAGAGG
 33951 CAAAAAAGTG TCTCACTAAG TTGCAGAAAA TGTGAACAGT TCACCAAGA
 34001 CGGATTACTG TGGAGAGAGT AAATATGTGC ACTTTTATT TTCCCAATA
 34051 TGTCACCATT ACAAAGGAAA ATCATGGAAT GGTGGAGGGT GATGGAGGCC

34101	CAGCCTGGGG	CCCCAATACA	TGCAGCAATG	GACAGTGAGG	TCACCGACCA
34151	AGCGGTTGTG	ATGTCAGCAA	TGGAAATGAC	TGTGTCCTCG	CTAGCCCTCA
34201	CTGTACAGAT	TTGGGATCTG	GCAGAGGCCA	GCGTGTA CTT	GTACCTGGAC
34251	TTCTACTGAG	CATAGCTGCG	AGACTCGGAG	CACTGAGCGA	GTTGGTTGAG
34301	TTGTGCTGTG	GGGCTGCTGG	CAGCAGTTCT	TGGTGCCAC	CCCCACGTAC
34351	CACCAACGTT	TCCCCCAGCC	CTGCCTGTCT	CAGGCAGCTG	GGGCCACACA
34401	GGGTGCACTT	GTAGCAGCAG	AGGTGAGTGG	TGCAGGACAT	GGCCTCTGCG
34451	GCGGCTGGTG	GGGAAGTGGG	AGGGTTTGCT	GCTGAGGGAC	CAGGACATCA
34501	CAGCTGCCTG	CCCATGGGAC	GAGTGACCAT	GGCCTCTCTC	TCTCTTTGCA
34551	GTTTCGTAACA	CCTTCTGCCT	GCTGCAGTAC	CTGTGAGGGG	AGCAGCTTCC
34601	CGACCTCAGC	TCTCCCAGCC	CACCGCACAG	CCCGGGGCCA	TGGACGTGCC
34651	ATCTAACTGG	ACCTGCCCCA	TCTGCGGGCA	AATTCGGGAG	GATGTCACCT
34701	ATGTGACCCC	CTGCAAACAC	CAGCTTTGCT	ACGGCTGTGC	CATCTGGTGG
34751	GCAAACAAGA	AGCCGAGTTG	TGCCGTATGC	GGGCACCAA	TCACCACCAT
34801	CCGATACTCG	GTGAGGTCGG	ACGACGACTA	CCTCGAGTGT	GCTGTCCCGC
34851	AGCCCGCAGC	ACACTCTGAT	GATAGCCTGC	AGGATGAGCA	GGGGCCTGCA
34901	GAGCCGGTGC	TCATCCCACC	TGAGCACAAC	TTCCCTGCCG	AGGTCTGGGC
34951	TGCCTTCTTC	AAAGAACATC	AGGGAGACCT	CGAGCCCCTG	CTCCACTGGC
35001	TGCAGGAGGA	GATCCAGGAG	GCGTCCAGCA	GTGACTGGTG	GGAGGTGGAA
35051	GTGGGACAGT	GGACCACTGT	CAACTTCCTC	TGCGAGCACG	GCCTGGACGA
35101	GGAGGCCTTG	ATGCGGGAGC	TGCAGCCGAT	CACTAACGGC	GATGTGCTGC
35151	CCTTTGTAAG	GCAGCTCATC	AGCACCGCTA	CAGCCCTGTA	CGGCCAGCG
35201	ATCCGCCGCC	AGCTCGACCA	CCAGGAAGGC	CGTGCTGCAG	GACAGCGGGA
35251	GGACAGCCCC	GCAGCCAGCC	CCAGCACCAC	CACCTCCCAT	CAGGAGCCTC
35301	CTGCCTCGGG	CCTGGGCCAC	TCCACCAGCC	CCGCAGGGCC	CAGCACCAG
35351	GAGCTGCCCC	GCAGCTCTAC	TGGGGGACCC	GGGCACCCCA	GCACCACCAC
35401	CGCGCCCTCA	GCGGAGGAGT	CGCAGGAGGA	GCCATGGCAG	GCGGTGGCAG
35451	CGGGCCCCCTC	CGCCCAGGGC	AGGGACCGCT	CGTGTGGGGG	GCCCCGGCGC
35501	CCCCCGAAGA	GGAAGGCCCG	CAGCAGCCCC	CAGGCCTCGC	CCCCACCTCC
35551	CAAAAGGCGG	CCCCGGCGGC	GGCGCTAGGC	TGGCACCGCA	CTGCCGTCAG
35601	AGCACAGCGC	CAGCGGGCTG	GGAGGCCAAC	ATCTACCTCT	CGGCCTGCTG
35651	CTTGCTGGCA	GAATAAACAT	CAGTTAAAC	AAAGAAGAAA	ATGTCTCTGT
35701	GTTATTGACA	AGACTCTTGC	TGTTGCTGTC	CCTACCCATG	CTGCTTTCTC
35751	TCTCTTCCGG	TCTTAGAGGA	GAGAAATGCA	ACTTTATTTT	CACCATCATA
35801	ATTGAGCATT	CATGACAGTA	CTAACAAAGC	ACACATAGGC	TCCAAAAAGC
35851	CGAAGATGGA	CCCCCTCATGT	TGCTCTAATC	ATAATCCAAC	CACCAGGACT
35901	TGGCTAAATT	CCTCTCCTAT	TGCCAAGCTC	TGGGCCACAG	ATTACTTCGT
35951	TTGATTTTAG	CTGCTGAGCT	GTGGTGTCCC	CCTCCCTTCA	GACTTCCCGT
36001	TAGTCAGTCT	GAAGATAAAA	ACTCTGTTAC	CAGATGACTT	TTAGATGGGA
36051	CAGCTCACAT	CTGAGCTAGT	GACCCAGCTG	CACATTTTGA	AACCCTACTC
36101	AAGACAAATC	CAAAAGGCAA	GAGAAATCTT	CCCAAATGAA	TTAATGCCAA
36151	CTACCCCAAT	GCTTATCTTT	CTGTACTCAA	GCACGGTGAA	CTGTTTCAGTT
36201	GCCATTTTTT	TCTACAAAGG	GCTTTCTATT	AGTTCACAAC	CAGTTTCTGC
36251	TAGCTATTTT	CTTGTCACCT	TCCCCTTGTC	CCTTCAGAGC	TCTGTGAATT
36301	GGTTGATGGC	CATTTTCTAC	AATGGAAAGT	GTACCGCTAC	TCGTGGCTAA
36351	CAAATAAAGC	AAGTGACATT	TGTTCACTTT	TTGTCCATCT	CCTTAGAGAT
36401	TTTTACTTTT	CCTGCACGCC	TTTCTCATCA	GATAGAAAGG	AATATTTTTT
36451	GCTTGCAATC	TATATACAGG	AATCCAGCCA	CTCACTTTTA	ATGCCCTCAA
36501	TACTTTTGCT	AGGTTGATTA	CAACTCAGTT	TTTCCTGTAA	CCAGGCTCCA
36551	TCATAAATT	AATTAGTAGG	ACAAGTAGGA	ACATGAGATT	AGTTCCAAGC
36601	TATCAGTTAT	GTGGACCTGG	CATACTGTGG	TAATTTAAAT	TAGCACACTG
36651	TAAGACATTA	CCCATACCAG	GAACAAATG	GAACAGGACA	TCGATCATGG
36701	CTTCCTCATT	TTGTAGGTGT	AAAAGAACAG	CTGGAAGACT	AAGCCAACAG
36751	AGCGCAAAAG	GTCTTTAAAT	ATCAAGCTAA	GCCACTTCTT	TTCTATGTAA

36801	AAAAC	TA	CTAGCTGCTA	TATATTGCAT	CACTGGATGT	GTACAGCACG
36851	TTATTT	CAAAA	AACACAAACA	ATTATGTTAC	TCAACTGAGT	AACACCCCTT
36901	ATCACTG	CAAA	CACGAGGAAA	TCCCGCCTGT	TGCTATGAAC	AAACAAGAAT
36951	CCATCTT	CCCC	GCCTTATCAA	CTTGAGTTCA	AGCCTTCCTG	TGAAAATGGT
37001	CCTGCTT	TATA	CTACGTACTT	GGATGACATC	TGTTACTTGG	ATGACATCTA
37051	TTGCCTC	TAG	GCAATAATAT	GTCAATGCAC	ATAAGAGTAA	AACTAGCACA
37101	GTCTAAC	AAAA	ATAGCTATCT	GGGATCTTGC	AACTACTCCC	TTTGGAAAAT
37151	GTTTTCT	TGA	TAAATGATCC	AATTTCAACA	TATGCACCAC	TGAATTTTCT
37201	GGCATG	CAAA	CCCATACTGT	CATAAAGACT	GTACTTCTGG	ATGTAAAGAG
37251	TATATACT	AG	TTGAGCCACC	TAAAGACAAC	AAGTTAACTG	GCAAAACAAA
37301	CAAACAA	ACA	AACCCCCCAA	ACAAC	TAGAA	ATTC
37351	CTCTATT	TAA	ATAAATGGAG	GCTTCAAAGT	TACCTTGAAG	CTGATTCTGT
37401	AGTTTCT	TTTT	TCTCAGGATC	CTCTGACTCT	CCTTCCCCAT	CACTGTCATT
37451	CCTGATT	TGG	AAACAAGAAA	TAAAA	CGTTG	AAAT
37501	GTCCTAG	GTC	ACAAATCAGA	AAGCAGGAAG	TAGAAAAAAC	ATCACTTCGA
37551	GGAAATG	AAAA	ACCTTATGAT	TTTAGATTTT	TTCAGCTCTC	TACAAGTTTA
37601	CATCCTT	GTA	GTCTTGTTTT	TCTACACTAT	ATTCTAACCC	CCCCCTCTCA
37651	CTGCAACC	AT	TTCAACTTCT	TTACAGACCC	GAGCCCTTCC	TCTTAACACA
37701	CTTCTAC	ATG	TGTTGACTCA	GCCTCTAGGA	AACAAAAGCA	TCGTGGAAGC
37751	AGCAAAAT	G	CTTCACTGTA	GATGCTGGCA	CTTACTCCTT	GTCCAGAATT
37801	GCAACTG	GTC	TTGGTCAATT	CCATTTAGTA	CTACGAAACT	CTCTAGTCTT
37851	GTCAGAATA	A	AGGAACTGG	AAGTTAAAAG	TAGAAAAAAG	TAGACGAGCT
37901	AGGGGACA	AAA	TGGAATGGAG	ACGTGTAGCC	TCATGTTTCC	TTCTACTATA
37951	AACCAGC	AGA	ACACAGTACA	GCTCAAAAAA	ATAAAACCCA	TGAAATGAGC
38001	AGACAAT	GAA	AGAAGCTGAA	AATCAGGGGA	GGTTTCAAGA	GACA
38051	CAGTTCT	AGC	TGTTCAAGAC	TACCAAAAAG	GGCAACCTCA	CCCAGAGACA
38101	CCATTGT	GAA	ACCTTTCTTC	TACCCTAGCA	AATACAAAAG	AGGCTCTGCT
38151	TGTTCAG	GTG	GGCTGATTCA	GCTCTCAGAT	GTGCAAAGTG	AAAAACGAT
38201	GTAATAAAA	AG	GAGAGCGGTG	CATAGGCAGG	AGCAAGGCAA	TAGAGCGATT
38251	CAGACCAT	CA	GAACATCAGC	CTATGACAGA	ACCTTGGAAC	CCCTCATCAA
38301	ATGTGAG	ACA	GATAAACTC	AGACCACAGT	AATCATCCAA	ACCAAACCAA
38351	CCAAATCT	G	ACTTATTTTC	TAGTCATTAA	GTATTTTCAT	GCAGAAGAAT
38401	TGTGTTACT	A	GGCTCACTGT	CATCGAAACA	AAAAGTATTA	GTGTAAAACA
38451	GCTTTTC	ATTC	TTCAGTGAAT	GTCCTACAGA	AGCATTGAAA	GATGTAGCAA
38501	ACAAGCACA	AA	AAAAGCCCAT	AATATTA	ACT	CACATTATTT
38551	AGCCCACT	GT	CCTTCAGCAT	TAGTAGTTAC	CTGAAGCGAA	GCACTTCAAA
38601	AACACTACT	T	AAAATGATCT	CTGTTGAGAT	CTAAGTTGAA	TCTTAGAATA
R gene exon 2						
38651	AGCGGAG	TT	AGGAAGTATT	TTGCTTTACC	TTCTCCCAAA	ACATACCCTT
38701	TTCCATC	GGC	AGGACCAGAC	TCTTTAACTG	GCTTTGGTGC	AGTTTTTTCT
38751	CTCTTTTT	CA	GATATTCTTT	CAGTTTTTCT	GCTCTGTCCA	AGTATTCGCG
38801	ACATTTT	CACT	CTAATGCTCT	GTTTTTGCTT	ATCACCCCTGT	GTTTCATCTA
38851	AGAGTGT	GAA	AAGAAACAAT	GCGTTGT	TAA	CAACAAAACA
38901	ATT	CAGAAAA	CATCTTTATG	TGTTATCAAG	ATACCTCTCT	CAGGGCTCAC
38951	CACGCAT	CCA	AATGTTTCAT	TTACTTATTT	TTTCCCCTAT	GCCATGGAAA
39001	GAAGTGAC	AG	GAAAGAAGTT	AACGCCTACA	AATCAATGGT	AAGTAATCAC
39051	TTTCAAAT	CA	AATACACACC	TGAACGTTGC	TTTGCCTTAA	AACTTGCCT
39101	GAACACG	AGT	AAGGACAGTG	GCACTGGAAG	CTTTTTCTGT	CAGTCTCTCA
39151	AACTGCT	A	TAGTGTCTTA	ACTACTTTTC	TAAACTAAGC	CATTGAGAGG
39201	CTGACTT	CTT	GTTTTTAGAG	ACCTTTTTTT	AATCTAAGAC	CACTTTATTT
39251	TTCCCCG	GCC	TGCTAATTTT	GAAAGTTGTG	CACATCAAAG	GAAGAAAAAA
39301	GTCACAAA	AC	ATCTGAAAAA	ATGAGGAGTG	GTCCAACAGC	CACAGTTCTG
39351	TTAGTCG	CTA	CTGCAGTATT	CCAGATCAGC	AATCAAGCTT	GAAAATATTA
39401	AGTTCAT	GCG	CTACGTTCCC	AAAAGTCCAT	CAGTATGGTT	AAAAGCATAG

39451	GGAGTAAGT	GGCATGAGTT	AATGAGCACA	AAACAACCTG	TGGATACTAC
39501	TAAGAGTTCT	TACAAGAAGG	GAGCAGGCAT	GCAATATGCA	ACTTTTGTCC
39551	TTGCTATAAT	ATAACACCTC	AGCCAAACTA	CAGAGAGCAA	GTGTCAACTG
39601	ACAACAACAG	TCAGAAGTTA	AACGTTGATG	TCGACAGAGG	AGACTACTCC
39651	GGGCAATATA	AAACTTGACT	TCATCACCCC	ATGCATTACA	CTTACATTTA

R gene exon 1

39701	ACAACGTGGA	TTAAATACTG	CACAGCATGC	TGGTACAAAC	GGAAGGCTTC
39751	TTCATAGTTT	CCTGCTTTAT	CTTCTTGTGC	TGCCTTACTA	GCGAGGTCTA
39801	TCGCTTTCTG	TAACATAGGT	AAATAATTCA	AATGAGTGTT	GTGTGAGTGC
39851	TTTGTGCGAT	CAAAGAGGTT	TTTAAGCTGC	TGCTCTGACC	GCTTCTTGGT
39901	GGCCAGCTTT	TCTGCTCCTT	GATGTTTACC	CAAAAGAGCT	GCTGTTATTG
39951	AAGACTTGCT	GTCAGTTGTC	TTCATCAAAT	CCCATCGGCA	TCAGTGTTGA
40001	TACTGGAAGT	ACACGATTAC	AAAGCAATGA	AAGCAGCACC	CTTTCCTTTC
40051	TGACCCAGTG	CCAGGAGTTG	GTTTCAAAGA	CTCATTATTT	GGTAAGCTTC
40101	CTCTGAAGGC	TTTAGGTACT	TGACGTACAG	AAGTGAGAAA	TTCTAACCAT
40151	CTCTTCAGTG	TGCATATGGG	GGGGAGCTCA	GTGGACAGGA	AACATACCTA
40201	AATTATCACA	GAAGTTCTAT	CAAGGACAAT	TTAGAGATGG	ATTTTTATTT
40251	GTTTGTGAG	ATAATTTCAA	ATACATCTGG	TCGTAATCTA	AGACACTACA
40301	TCGGCCTGTA	GATATATTGA	TATTACTGTT	ATTCCTTTGA	TCCCGAGTGC
40351	TTTTTATTAC	ATTTTCAGATT	ACATTACAGA	TTTTTATTAC	ATCCTTGGA
40401	CATCCGTA	GCTTCAGGAC	AATTAAGAAT	GACAATTCCA	ATGACTAAGG
40451	CACGTATGCT	TAAAAAAGCC	AGAGTTGACT	AACGCTACCT	CGAACTTCTA
40501	CAGCCCTGTC	TGCATATTTT	CACCTTCTGC	CAGTTTATTT	CCCAAAGGCA
40551	GGGACAGCGT	GCTCGTGATG	ACTGTGCTAA	CATCAGGGAG	CAAGGTGAAG
40601	ATATTCAACC	TCATCACAGG	GTTTTCACTA	CACACTGCTG	TGCACATACT
40651	CTCAACAGTA	ACCAGACGCT	CTGATGCATC	TCAGTCAAAA	CCGAGCAGAT
40701	AAACTGCAGC	CATCAGAGAA	GGAGGAACAA	CATTTCTCCT	TCTATTGTTT
40751	TGTCTTGCCCT	TTTTGGAAGT	AGAGATCACCT	TCATTGGATC	CATCTGAAAT
40801	CAAGAGTAAT	TTATTTCAAA	ACAATCACCT	GACAAGTAAG	ACTATGGATC
40851	CTTTGTGACA	AGTGTTGAAA	ACAGAGCAAC	CATCTGTTTC	TTTGAAACAG
40901	AACTTGGTCT	TTCCTCACTG	CTGACCTCGT	GCTGCCCTCT	ACAAATTCAT
40951	TGTAGAGGGC	AAACCATTCA	AATTCAGCAC	AACAAAAATA	AATTCCAAGC
41001	AATAATTTCT	GTTACTTTAG	TGATTTAATT	ACCACAGGAA	CAGTCCAATG
41051	ATTCCTGGAT	GCAGAACAAC	AAAAACAGGG	CTATGACAAA	AATGACAATA

CR1-GG

41101	TATCCAAACA	ACAAATAAGA	GTTGGACTTG	ATGATCCCTG	TGTATCACTT
41151	CCAACCCAGG	ACATTCTATG	ATGCTATGGC	TCTGTGTTCT	AAATGGCAAA
41201	GACCGCCTCT	GTTCAATGGT	AACTCTCTTA	ACAGGGCATC	TTAGAGCCCT
41251	GCTCCTCTGA	AATACAAAAA	CAAAGGTCTA	CATCCTGTGC	TGACTGTTTT
41301	TGGTATTTTT	TCAAATAAAA	ACCCAGAAAA	CCATCACTTC	GGTTTTAGAC
41351	TCTCAGCTCT	GGTACTTTAT	TACATTAGGA	AGGCTCTTAG	CCTGCTACTG
41401	CAATGAAAAA	CACCAGTAAC	AAACAGGAAA	TAATTTATGA	AAGTTGTATG
41451	AAATAAGGCA	TAGCTGTAAC	CATAAATGAG	GCACAACCTG	TATCTATGGG
41501	GCTATAGTTT	GAGAGCTGGA	TGAACACCAC	CCTCAGAACG	AACATCGGCT

CR1-GG

41551	TTGCTCTTCT	GCTTACTCTG	GGCCCTCTGA	TTTCACAGAA	GGGCGCAGGT
41601	TGGAAGGGAC	CGTAAAGCCC	ATTCAGTTCC	AATCCCCCTT	GCATGGTCAG
41651	GGCTACACCC	CACCAGCTCA	GTCCGCCCCAG	GGCCCCATCC	AACCTGGCCT

MAR (0.72)

41701	TGAGCACCTT	CAAGGATGGG	GCACCACAGC	TTCTCTGGGC	AGCTGTGCCA
41751	GGGCCTCGCA	ACCCTCTCTG	AGTAAGGAGT	TTCTTCCTAA	CATCTAACTT
41801	TAATCTCCCC	TCTTTTGGTT	TAAAACCATA	CCCCTTTGCC	CTACCTCTAT
41851	CAGACCATGT	AAAAAGTCAG	ACTCCCTCCT	GTTTATAAGC	TCCCATCAAG
41901	TACTGGAAGG	CTGCAGCAAG	ATCTCTCCCA	GCTTGGTCAC	TATAAGCACT

41951 ACATAGCCTT AAGCTTACAG GCATGGACAT GGTTTAAATA GGTTTAAAC
 42001 TACTTTTTGC ACAGATTATT CCTGGATCTA TTTTGAACCG GCAACACAAG
 42051 CAGTTCACTC CCACAACCGA AGGCTAAAAAT AAAATAAAAT AAAATAAATA
 42101 ATAATTAAAA AAAAAAAAAA AAGGAATAGA GAGCAGACAA GCATTTCCAA
 42151 GAGTCGTACT CTCAGCAGAA ACCCAGTCCA AACTACGCCT CCAGCTCACA

CpG island

42201 GCAGGCCGCA GTCTTGCCCTC AGAGGCCAAC GGGTCTTCTG GTCCCAGCCG
 42251 GGCAGGTGAC TACCCGGGGT CCTCCGGCGC CTCCGAGCCC CCACCCAGGC
 42301 CTGCTCGACG CCCACCGCT GGTGTCAGCG CTTCTGCCCC CAGGCCCAGC
 42351 CTGGCGCCCC ACCCCGCCGA GCCCGCCCTC CCACCCGCCG GCTGCAGCGC
 42401 ACCGGGGTTC AACAGGACCC GCTCTACCTG CAAGTTGCCG GACATGGCGG
 42451 GGAGCCGGGA AGGGGAAGGA CACGAGACGA CACTGGCTAC GGCCGACCGG
 42501 AGCTGCCCTT CCCGCCACCG CCGCCACCG AACCGAAAAG CCGGCCTTCG
 42551 TAGCCGCTT CCGCACCTCA TCGCCGGCCG GCCCGCTTCC GCTTCCGGGC
 42601 AGCGCCCCGT ACGCGTCACT TGACGTCAGC ACGCCGCGCC TCGCCCCGCC
 42651 CTATCCGAGG GGCTGAGCGC ATGCGGGCCG GGCGCCGGAA GCGGAAGTTC
 42701 GTGGGTTGGC GCGCAGCAGT GGTGCTGAGG GAATGGGGGT GGTGTTAGGT
 42751 CCAGCACTGA CGTAGGGGAT AGGGCTGAGA TCTGATCATG ACCTACTGTG
 42801 GGGAGCCTGC TGTAGCAGAG GTTGGGCTGG ATGCTCTCCA GATGTCCCTT
 42851 CCAGTCCCTG CGATTCTATG ATCATTCTG TAAATGTTA AATAGTCACT
 42901 TATAGGGTTT TGAATAAATC ACGTTTTTTC CTCATGCCTC ACGTTTGGGA
 42951 CACAAAGACA TTTTTTTCTT ACATCTCTTC TTTCTCGTAC CATTTGCTTG
 43001 CTTTCAGCGG CACTGTCTTT TGCATAATCT GAGTGCAGAA TGCTTTTTAT
 43051 TCACAGAACC AGCTCTTAAT AATTCCTGAC AGTCATAAGC AGTCAGGCGT
 43101 TAGTCACCTG CAGCTCAGTA ATGAAACTCA ACTAACAGGT CTGCAGAGTA
 43151 AGAGCAATGA CGTGACTCAG AAAGCACAGC ACATTGTAAA CAACTCTTGT
 43201 AAACCTGCTA TATGGGTTTC AGACTAATGA ACTTCTGCTA AGTCGGTGCA
 43251 ACAGTTGTGT TAAATTACTG TCATATCCTT CCCTATGTTA TTGTAATACT
 43301 GTTGAGGAAA TGCTTCCTTA GATTCAACAAT CCTCGTTTTT CTACCTGCCT
 43351 CCAACTAAGC CCAGTACAGT CTGCTCTGGG ATGAAGGTAA AAGGCACAAG
 43401 CACAGTCAGC CCTATATCTA GGAAGGTTGA TGTAATTTCT TCCTAAAGTC
 43451 CTCTGCTTGG CAGCTTGTTT TGCTTAATGT CTTCATATGT GCACACCAGG

S gene exon 1

43501 CAGGATGCTG AAGGCTCGTT GTTTGGGGAT GATCAGTAAC AGCTGTTCTT
 43551 CTATTGCAAA TGTGAAAGGG TACAATGTAG CAAAAATTCC TGGATGTAAT
 43601 CAGGCTCTGG GAAATGAGAA GGCAAAGGAA ATGTTGGAGG TAAGAGCAGC
 43651 GTTCAGGAAC CAGAA TGATA TGGGTTGGAA GGGATCTTAA AGATCATAGA
 43701 ATCATAGAAT CGCTAAGGTT GGAAAAGACC CACAGGATCA TCCAGTCCAA
 43751 CCATTACCCC ATCACCAATG GTTCTCACTA AACCATGTCC CTCAACACAA
 43801 CATCCAAATG TTCTTTGAAC ACCTCCAGGG TCGGTGATTC CACCACCTCT

S gene exon 2

43851 CTGGGCAGCC CATTCCAGTG CCTGACCACC CTTTCAGAGA AGTAGTATTT
 43901 CCTAAAGTCC AGCCTGAACC TTCCCTGGCG CAGCTTGAAG CCATTCCTCT
 43951 TAGTCCTACC ACTAGTCACA CGAGAGACGA GGCCGACCCC CAGCTCACTA
 44001 CAACCTCCCT TCAGGTAGTT ATAGAGAGCA ATAAGGTCTC CCCTGAGCCT

S gene exon 3

44051 CCTCTTCTCT AGACTGAACA ATCCCAGCTC CTTTCAGCCG TCCTCATAAG
 44101 GTCTGTGCTT CAGACCCCTT TCCAACTTTG TTGCCCTCCT CTGGACACGC
 44151 ACCAGGCTCT CGATGTCTTT CTTACAGTGA GGGGCCTAAA ACTGGACACA
 44201 GTACTTGAGG TGCAGCCTCA CCAGTGCTGC GTAGAGGGGG AGTCATCTTG
 44251 TTCCAACCCG GTTTTCCTGT AGGTAGTATT TCTGGCTGTG CCATCTGTAC
 44301 CTATGGTTTT CAAATCTGTA ATGCTACACC TAGCTTTTAG ACCTAGGTCT
 44351 AAAACAGTAC ACAAGTCACA GGCATGTTAG TAATGCCTCT CCAGTCACAC
 44401 TTTGCAGTCT TCCGAAACTC CACATATAGA CATGTTTCTA TGATTGTGAA

44451	TGAGATTAAA	AAAAAATAA	ATTAATAAAT	CAGAAAAGGC	ACGTGTATAT
44501	TTACAGATAA	CAGGCTAAAT	ATTATACTTC	TTAATTAAGC	TTTACTATAC
44551	AGTATTCCTG	TTATGTGACT	TTGCAGCTAG	TTTTGCCTAA	GGAAATACTG
44601	GCTGAATGCT	GAGTAATAAC	ATCACGACAG	ACTCCTGAGG	AGCTAATGAA
44651	GTATTACACC	AAGAGTGTAG	CTTCAGTTTG	AGAGACGTGT	ATGGTCACAT
44701	TTTGGAATGC	TTCCCATTCG	TGAGTTGCTG	TGTTACAATA	TTCTCAAAAT
44751	CCGTGTCAGT	TATTGTGTTC	AACTGAGTGT	AATGACAATA	AAATATATTA

CR1 - GG

44801	ATGACGTTAA	ATGAAGATAT	CATAGAATCA	TAGAACATCC	CAAGTTGGAA
44851	GAGACCCACA	GGGATCACCA	TGTCCAGCTC	CTGGCTCCAC	ACAGCACCAC
44901	CCAAAATTCA	AAGTTGATGT	CTGAGAGCGC	TGTCCAAATG	CTCCTTGAAC
44951	TCTGGCAGCT	TGGGGCTGCC	CTGGGCAGCC	TGTTCCATAC	CCACCACCCT
45001	CTTGTTCCT	CGGGCTCTGT	CGCAGTCACA	CAGAGCAGAG	CTCAGCGCTG

CR1 - GG

45051	CCCCTCCGCT	CCCTGCGAGG	AGCTGCAGCC	GCCACCAGGC	CTCCCCTCAG
45101	CTCCTCTGCT	CTGGGCTGAA	CAGACCAAGG	GCTCTCAGCT	GTTCCTCATA
45151	CACGTTGCCC	TCCAGATCCT	TCCCCATCTT	TGTGGTCCTC	CCTTGGACAG
45201	TCTCTAATAG	TCTTATGTCC	TTATATTGTG	GCACCCAAAC	CTGCACCCTG
45251	TGCTGGAGGT	GCAACTGCAC	AGCACAGAGT	AGAGAGGACA	ACCCTTTCCT
45301	GCACTCGATG	GCACTGCTGG	GCCTGATGTA	CCCCAGGGTA	TAGTTGGCCC
45351	TTTGGGATGC	TAGGGCACAA	CGCTCAGTCA	CATTCAACTG	TCTGTCAACA
45401	AGTACCTATT	GGCCTGCATG	AGGCTGTCT	GCTAATTGGG	ACTCTATTAA
45451	ATCACATCAC	TGTGACACTA	GGTGGCACAG	GCACACATGA	TCTCCATGTT
45501	CCTTAAGGCT	GAGTGAATCA	TGGAGAATGC	TTCCTGCTAT	CAGTTTTTGG
45551	CATGGAAAGA	GAGGAGCCAA	ACCACCGGTT	GGTTCAATGC	CTTGTGCCAG
45601	GAATAGGTGA	ATGCATCAAT	ACAATAAGTC	ACGTCTACAG	CACAGCCAGG
45651	CCTCATGTCA	GCAATACTGC	TCCACTGTGA	TAGCTGAAAG	TGACTATAAA
45701	TGACTAACGT	TAGTGTGGGA	CTTTGGTGTT	AGATGACGTG	AGAGCCATGC
45751	AGTGAAAGAG	AATTAGTGTG	GCAGAGTATC	TAACAGTGCA	GGTAGATAAG
45801	GCAGGAAGGA	TAAGTGTAAG	GAAAGATAAG	GAGAAAGGCA	GGAAAGTAAA
45851	ACCTCTGTTT	TTCTCTAGTT	TTCTACCTGG	TGAAATGATG	AAGAAAGATC
45901	AGTTTGACAT	AGGTTAACAA	AACTGTCAG	TAAGAAAGGT	AGGAGTTAAG
45951	ATGCATGTTG	TCCAAATCCC	ACTACATTAC	TTTGACCCTC	TTCAGCATAT
46001	GCACAATGAG	ATCACTTGCC	CAAGACAGGA	CCTCCAGTGG	GCATGAAATC
46051	TGAAAATCAA	TTATTTGCTA	TTTGTGTTGC	TTATCATTTT	CAGATGAAAT
46101	TCTACACGAG	ATAATTAGAG	TGATGTCCTT	GAAGATCAAC	CTTTTTGTCT
46151	AATTAAGGTA	TTTGCTATAG	CTTCCAGATG	TATTGCTTAT	CTATGATAAA
46201	TATCCTTCCT	AACTACAAGG	CTTCTATAAT	AAGAGTAACG	TCCTCTATAG
46251	TAACCAGTAG	AAAGTAGGTG	GAAGCTGGGT	GTTCTTAGAC	AACCTGTGCC
46301	CATACATGGA	CAAAGTGAGG	AGGAGGACAC	CTCCCTAAAT	GACCACCAGA
46351	GACCACTGAA	GACCCACATG	CAAGCACAGA	AGATTCAGAT	GTGTTGGTGT
46401	AACCTTGTA	ACGCAGTAAT	CTCGTGAATA	TGTGATAGAT	AGGTGTGCCT
46451	TATGTATTAG	ATAGGCGAGT	ATTGAGAACT	TTTGGTTTAT	GGATGTGGAT
46501	AGTGCTGTTA	TCCATCTTGC	ACCCTGAGCA	TAAATAAAGC	AATATCTCTT

S gene exon 4

46551	CTATAGTGCC	TTGTCTTTTC	ATTGTATTTT	AGGAGACTTT	GAAACTGACA
46601	ACAGGCATGC	AGCTTGGGAG	TGCTCACAGT	CAGTCTGGCC	ACAGTGCCTT
46651	CAAGCCTCCC	CTGCACTGGG	ATGTGGTGTG	ACAAAAAGCA	CAAACTGTC
46701	TTTTGTAGAA	GACCCAGACC	ACAGGCTGCA	CTAGGGAACG	TGTCTGCCTG
46751	GAGCACAGTG	CCCTGGGGAG	TGCTGCTGGT	ACAGTAGTCC	TGGATGAGTG
46801	GCTTCCTTCT	GTAACCTTTT	AATTGCACTA	GAAGTACACC	AGCATGGCAG
46851	AGAAGGGCTG	GGTCCTAAGA	GCCCTTCTTT	CAAATTCACT	CAGAACTCCA
46901	GATGTTTAGG	CAGGGTGTTG	TAGCTGTAAA	GTCCAGGAAG	AAAAGGTTTA
46951	AAGCTGTACT	CGGCACCAGA	AAGACTGGAG	CCAAAATAAA	GCCACATTGC

47001	ACCCATGGCA	CTATAGGCAA	AGGGTAGCCT	TGGGGCAAGA	CTTGATGTAC
47051	TAGAAGTTGA	GGAGTCCTCA	GACTCTGTGT	CAAGGGGATG	TGCCACAAC
47101	CTACTGTGCC	CCTACCTGAA	GCCTGAATCA	GTACAAATGT	CTCACGCATG
47151	GGTTAGGCAT	CCTTCTCTCA	AAGCTCTTGG	TCTTTGCACA	CTTTCTTCTG
47201	CAGCTGCAGC	AGCAGCCAAA	GGAAAATTAG	GTCTTGCTTT	GAAAGCCAGC
47251	CCCTTCCAGC	CATGACTGGT	CCCTTCTCAC	TCCACATCTG	TGGATGATGC
47301	TCCCACAGCA	GGTGGGAGAG	ACAGAGGCTT	TCTTGAAGAA	ACCCAGCCCC
47351	TCTAGGGGAA	CACTGTAAAG	TCACAGGGGA	GGAGACGTGG	CTTTGAGACA
47401	GTGATATACT	CCATGCCCC	GGCGTTCTTC	CCCTGAGTGC	CACTGGTGCT
47451	GCTCAGTGGT	CACATGCCAC	CAAAGTCTGC	ATTCATCTTT	AAATGCTGCT
47501	GAGAATTCAA	CCTTTGATAA	ATCATCTGCT	TTGACAAAAT	CGACATTTAA
47551	AAATTAATAT	TTCCTCTTCC	ATCCCCTACT	TTTACAGGCT	GGCTCAAGAA
47601	AATGGGAAGC	TTAATGTAGA	CTTGGGTCTT	ACTAAACCAT	TTCAGTGGGA
47651	AAGACATTCA	CAGTCTGTGG	CAGATGGTAG	CAGTATATTT	TCTCTCATAG
47701	TACAGGAATG	GGTCTGGTAG	TACCTCTTTG	GAAAGGAAAA	TGTAAACTCA
47751	TACGTTTTGA	GCCAAATTCC	ATCAGATTTT	TTAGTTTTGT	TAGTTTTTAC
47801	TCCACTCCTG	CTGGAAACTG	AAAAATATGA	AATGCTTGGA	AATTTACTGT
47851	GATTTGGGTT	CAGGTGTGTG	TATGCAGGAA	ATGTGTTACC	TTCCAGAGTA
47901	AGTCAGTTTA	TTCTAGAAAT	GGGATGACTC	CACTTTTATA	CACTTGTAAT
47951	TCACAGTGAG	ATTAATCCAG	CCAATTGGGA	AAACAGCCTT	TCTTAAATTG
48001	TGAAAAACAT	GCTCCACTTC	TATGTATTTT	TTAATATACT	TCAGCATTGT
48051	GAATTTGAAG	TTTTTCTTCT	ACTGTTACAT	GCATTCCAAC	AGAATTTGTC
48101	AGGAACAAAA	ATGAAATCTG	AAATAATATT	TTTCTTAGCT	TTGCATGTGT
48151	TATCCTCAAG	GGTAATCACT	GTCTTAAACA	ACATACTTAT	GGCTGTTTCT
48201	GAGCCTTTCT	TCTTCATGAA	CTCATCAGAA	AGGGACACTC	ATATTGGCAG
48251	TCTGTATAGA	GAGCCAAGGA	CAAATATTTT	GCCTACGTCT	TCTCTGCGTA
48301	GCATTTTATA	TATTAGGTCT	TGCTAGTGAA	TTATGACTGA	ATGGAATACA
48351	GTCCCTTCAG	TGATGACTTC	ATTCATGATT	GAATAAATGT	AGCTTCAGGG
48401	CTGTATGGTT	GACTTACATC	ATCCAATTTT	GCCATCTGCA	ACAGCCAACA
48451	CCTCTACCCA	TATATGAATT	CAGCGAGGGA	TTTTGTACTA	TGTGTTGCTG
48501	GGATGTAGCA	GCATTTCTCT	TTGAAATGTC	TTTACAGATG	CAATGCCTAG
48551	CAGGCTTAAC	AGCCCTACCT	GCTTCAGAGA	CACTGCTGTA	AAAAGAAAAA
48601	GAGAAGCTTC	CCAGCCAGTA	TTTCATCAAG	TTAAAAAAA	TCTAAAAGTT
48651	TATACTGTAC	CATTTGGATT	GCTGCATGTT	GACATCATTT	AGGATTCTGA
48701	AAACCTAAAG	AAGCTTTGGA	GCAACTCCTA	AGTGTATGGT	AGATGCTCTC
48751	ATTATGTAAG	AGTGACAAAT	CACTACCAGT	CTTCCAAAAA	TGCATGCTGA
48801	AATCAAAAAA	GAAATAATGG	ATCTCACAAA	ACTGGATCTG	CAGATCAGGT
48851	TCTACAGCCT	CTGGTATGCA	AGGGTTAAAG	TAGAGTGATT	GTTGTAGCTT
48901	GTGTCTCACA	GTCAGACATA	AATCTGTAAG	CAGGTCCAGG	TTTTGTAAAT
48951	TGTTGCTTAT	CACCACATGA	GCAATAAGTA	ATCTGAACAC	CCAATGTAAAC
49001	AGATTTCTAG	GAGTTAGGGC	TGAAAAGCATC	ATGAAGTTTA	TTCTTTTCTA
49051	CAGCAAAGCA	GGCTCTGTGT	ACCTGTCTAG	CCACATTGTC	TCTGACAAAA
49101	TTTATCATCA	ATTCTCATCT	CCATCAACTT	TTAAGAATTA	CAGAATTGAA
49151	GGGAGGGATT	GTTGAAAGGG	ATCTCTGGAG	ATCATCTAGT	CTTACCCCAT
49201	GATGAAGCAG	GTCCTTACA	ATAGGTGGCA	TAGGAAAGTG	TGAGCAAACA
49251	CCCTGCTGTG	AGCACTCAGT	GTAAAAAGAA	AGCCTGGAGT	AGAGACCAAC
49301	ATCAATCTGT	ATTGCATCCA	AACCAGAAAG	GGCAAAAAAA	GTGTCTCACT
49351	AAGCTTCAGA	AAGTGTAAC	AATTACACAGA	AGATGGATTA	TTGTGGAGAG
49401	AGTAAATGTG	TGCAATTTTT	ATTTTCCCCA	ATATGTCACC	ATTACAAAGG
49451	AAAATCATGG	AATGGTGGAG	GGTGATGGAG	GCCTAGCCTG	GGGCCCCAAT
49501	ACATGTAGCA	GTGGACAGTG	AGGTCACCGA	CCAAGCGGTT	GTGATGTCAG
49551	CAATGGAAAT	GACTGTGACC	TCGCTAGCCC	TCAGTGTACA	GATTTGGGAT
49601	CTGGCAGAGG	CCAGCGTGCA	CTTGTGCCTG	GACTCCCGTT	GAGCATAGCT
49651	GCGAGACTTG	GAGCAGTGAG	CGAGTTGGTT	GAGTTGTGCT	GTGGGGCTGC

49701	TGGCAGCAGT	TCTTGGTGCC	CACCCACAG	TACCACCAGC	GTTTCCCCCA
49751	GCCCTGCCTG	CCTCAGGCAG	CTGGGGCCAC	ACAGGGTGCA	CTTGTAGCAG
49801	CAGAGGTGAG	TGGTACAGTG	GGGAAGTGGT	GGGAAGTGG	GAGGTTTTC
49851	TGCTGAGGGA	CCAGGACATC	TGGACAGCTG	CCTGCCCATG	GGACAGCGAG
49901	TGACCATGGC	CTCTCTCTCT	CTTTGCAGTT	CGTAACACCT	TCTGCCTGCT
49951	GCAGCACCTG	TGAGGGGAGC	AGTTTCCTGA	CCTCAGCTCT	CCCAGCCCAC

T gene

50001	TGCACAGCCC	GGGGCCATGG	ACGTGCCGTC	CAACTGGACC	TGCCCCATCT
50051	GCGGGCAAAG	TCGGGAGGAT	GTCACCTATG	TGACCCCCTG	CCAACACCAG
50101	CTTTGCTATG	GCTGTGCCAT	CTGGTGGGCA	GAGAAGAAGC	CGAGTTGTGC
50151	CATATGTGGG	CACCAAATCA	CCACTATCCG	ATACTCGGTG	AGGTCGGATG
50201	ACGATTACCT	CGAGTGTGCT	GTCCCGCAGC	CCGCAGCACG	CTCAGATCAC
50251	GGCCTGCAGG	ACGAGCAGGG	GCCTGCAGAG	CCGGTGCTCA	TCCCACCTGA
50301	GCACAACTTC	CCCGCCGAGG	TCTGGGCTGC	ATTTTTTGAT	GGACATCCCC
50351	AAGACCTCGA	GCCCCTGCTC	CACTGGCTGC	AGGATGAGAT	CCAGCATTTG
50401	ACCAGAAATG	GGTGGTGGGC	AGTGTGTGTT	GGACAGTGGA	CTGTTGTAGG
50451	CCTCCTTTGT	ATTTTCGGAC	TGGACGAGGA	GGCCTTGGTG	CAGGAGCTGC
50501	AGCCATTCTC	TGATGCTGAC	TTGGTGCCCT	TTGTAAGGCG	GCTCATCAGC
50551	ACCGCTGCAG	CCCTGTACGG	CCCAGTGATC	CGCCGCCAGC	TCGACCAGCA
50601	GGAAGGCTGT	GCTGCAGGAC	AGCGGGAGGA	CAGCCCCGCA	GCCAGCCCCA
50651	GCACCACCAC	CTCCCATCGG	GAGCCTCCTG	CCTTGCGCCC	AGGCCGCTCC
50701	ACCAGTCCCG	CAGGGCCCAG	CACCGAGGAG	CTGCCC GGCA	GCTCTACTGG
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50901	CAGCCCCCAG	GCCTCACCCC	CGCCCCC CAA	AAGGCGGCCC	CGACGGCGGC
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51001	GGCCAACATC	TACCTCTCGG	CCTGCTGCTT	GCAGATAAAA	TGTGGGGATT
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51251	AAGGAGTAGA	ACAAGAGCAA	GGGTGACCC	GTGGGATGTT	TTGTTGACAT
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51551	AGACATGCAG	CTTTATTTCC	ATGACCATAA	ATTGGCTTTC	ATGACAGCAC
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51651	TCTAATAATA	ATCCAATAAT	CAGGGCTTCA	CTAATTTCTT	CTCATACTGC
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51801	CCAAAAATAT	GTGCTGTAAT	CCAAAGAGAA	ATTATGGGTC	CCATTAAATT
51851	GGTACTTTGG	GTTCTACAGT	CTCTGTTATG	CAAGAGTTCA	AGCTAAATGA
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63151 ATGAAGTAGG TAAATGTTTA AGACTGCAGT ATTAAGTAGG CATTTGAGAG
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63251 AGGTAATGCT TCAGATAATG CTACAGACTT TCCTGTTTGC GTCTTCTGTG
63301 TCAGAGCCTG AAACGTTATT GCAAATAGAT GTCTGGATAA GAACAGAACT
63351 GTTAAAATCA CCTTGCCATG CCATATAAGT TCCAATATTT TGCCATTTTTT
63401 TTTCTGGGGC AGGGAACATG TTGAAGAAAG TTTTGTAGTT CTGTTGGAAG
63451 TCTTTCCCTT TTGAAGTCCC TTGCAGTATT CATCTTTTCC TTTTCCCTCT
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63551 TCCCCTTCTT TAGGGACATG TGATTCTGGG GATAGAAGAC AGTCAAACCTC
63601 ACTGTGCCAA AGGAGTTACC GTCTTCCATA TTTGTGCTGC TCTTAAGCTC
63651 GATGCGATAT TGAAGTAAAT TCTGTGGTTT CCCTTTGTTG TCTTTAATCT
63701 ACACCAATGG AGTTACACCG AAGTGCAGTT TTAGATCTAT GAAAGCAGTC
63751 TGGAAGATCG AATATTCCTG GTCAATCCCA GAACGTGGTC CAGAACATCT
63801 GTCGCTTGGC ACCACCTTTT CCATTCCTGA CTGCATAGAT CAGCTAACAG
63851 CCCTACGGCA ATTGCAGTTA CTCTGAACTG CTAGGAAAAT ATTTGCAGTC
63901 ATCATTGTAA GTGATGAGTG GGCACATAGC AGTATTTATG TAGGAGGCTA
63951 AGTACTTAGA GTTCTAGGA TGATCTCAAC CTACAGGACC GGACAGCTTT
64001 CTGGAGAGTT CTAGCAAGGG TAAGGAGAAC AGGGAATCAC CTCTTAGAGA
64051 GAGGACATGC CACAGCTAAA GCTTTAATGA ACAATTAGAT GTGAAGCAAG
64101 AGACAGGAAA GATGATTGTG AGACTTTTAA AAGCCTATCA AAGCACTAGG
64151 AGAGCCCAAA GCATAGGCAA AGTACCTTAT AAGTTGGCAC ATCTGAAGAG
64201 TATCAATTAA AAACATATTA AATCCATATG TTATCCGATG TGATTCAATA
64251 TGTGTGGGTC ACCCTGACCA ACCCAGATTT CTCCACGTAT GTCTGGTAAT
64301 ACTGGCTCTA CGTAGCACGC AGAACTGCCA GCTGTCACTT GAAGGTAAGG
64351 GCTTCTACTG AGCCACTCGC ATTACCTTGG TTGGGCATGG ATGAGAGACT
64401 CCTCAAAGC TGCTGGTGGT GTCTGAGACT GGGCAGGATT GGTCAAGCCT
64451 TTCTCGCCTC CCAGCGTAGG TTCAAGCTGC CCAGTCCCCA AACTGGTGTC
64501 CAGCCTCCTT CAGCAAGGAA ATCAGTGACC TGCCAGCCTC ACTGCAACAG
64551 GAGCTCACTC TGTGGGTCAT CTCTATCCTT TTCTGTTTCA GGATGACGAT

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U gene exon 1

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64601 GGATGCTCTG CAACTAGCAA ACACTGCCTT TGCTGTTGAT ATGTTCAAAA
64651 AGCTATGCGA GAAGGACAGA ACAGCCAATA TTGTGTTTGC CCCACTGTGT
64701 ACCTCCACAT CTTTGGCTCT GGCATATAAA GCTACAAAGG GTGACACTGC
64751 AGACCAAATG AAAAAGGTGA GCTGTCCGCA TCCTGCTGTG TAGCTGCAAA
64801 ATTGTCAGAG GTGGCTTTCC TATTTATTCC TCTTAATGCT GTATAGGACT
64851 GCTGGTTCCC TTGTAAGCCA GGCAGAAAAC TGTCCATCCA AAATTCAGAA
64901 ATATTTCCCC ACTCCATGGC TCCACACAAC CAAAGAGGCT GAAAATCACT
64951 AGCATAGGGA AAAAAGCTTT CTCAAGCATT TACAAGGTGG ATGGGGACAT
65001 GGCAGAGTCC TCAGCAGTTG TATTAAGGCC TTGTCTCCTT TCAGCAGGAA
65051 TGCTGATTGT GGCTGAAGGT GACTGCTGAA GTCAGTGCAT TTTCTGGATA
65101 ATTGTTTAGT GATTATTCAG GACTGCCTAA GCTTAACAGG ACTGGAAATA
65151 ATTTTGCCAT TACCAAGTAA TTTTAGCAGT TCTGTCTGTG CCATTTCCCC
65201 TTTCTCCTGC CATAAGCTA AGAGGAAGAT AATGCAGTAG GAGGCAGCTC
65251 AGCTTGAGTA GTAGTTTGCC TTGCAAATAG CTCTAGATGC TCAAGGTTT
65301 TACAGCACCA CGAAGCAGCA TCATGGTGAT GGTGCAATGA GTTTATCAAG
65351 GTTGCTCTGT GGCAGTGAGA GGCTGCACGA CTGCCTCTGT GAGAGCCAGG
65401 ATTTACACAG CCTCTTTTAA TTCCAGTGCC CACAGTCTCA GCAGTTACCT
65451 AGAGGTGAAT GAGAAGCAAA TTCAGCATGC ATTTATATGC TGATTATCAC
65501 CTGGCTCTCA GGGGCATTCC ATGTATTTGA ATACATTTTT CTTCGTTTAG
65551 CAGTTCCCTC TTGTACCTTT GGTTCCTCTG ACGGCACATT GCTGGAGCAC
65601 AGCCTCTGGC GCCTCTGCTC ATCCTACAGA TTGCAATGAG TCTATTTGCA
65651 CAGAAACAAA GTGGTATATC CACAAAGGCC TGCTGGGTGT TTTCCCAAT
65701 AGGATTATTT TAAAAAATA AAAATAAAAA TGATTTTTAG ATCTTATTTT
65751 TAGTTTAAAT GACACCCCAA AGCTTCCTTG TCATTTCAAA GTTCAAGCAC

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65801 TGTCTTTGCA ATGGAAGAGC TTAAAACATT AACCTGTGCT TAATTTCACT
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 65901 CCACATCCAC AAATAGGGTT CTGTTACACA AGTGCACTTA TGTTTCACAT
 65951 TTCTCAAGGT AATTTACTGT GCCTGTAAAG ACATGGTGTG TTCAGGGAGA
 66001 AAGAGCAGGA GTGAGGCTGA AAGGGAAAAG GAGGTCACTG ATGCTGGTTG
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 66151 GCTAGAATAT CCTGGAAGT GGCATGTGAT TTCCCGGAGC TGGGAGGTGG
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 66351 CCAGAAAGGA AACTAAGTGG AACATTTATT TATCTGGCCT CTAAACTCCA
 66401 GATTTTTTGA CAAGAATGTG AGTTTGATAA AAGCATGACT CCACGCTGCA
 66451 GATATGTAGT TCACTAAATC ACTTTGCTAG TATGAACAGC TCTATGGAAT
 66501 TCTTTGGACT GCTCACAGGA AGGAAACACA TTTGGTTAAA GTTTTGATAG
 66551 GATCAAGTTT TTAGATTTAT GTGGGGATGT CAAATAAATT AATTTTTTTT
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 66751 CAGATCTTAC AGGAGAGCAG CTGAGGAAAC TGGGATTGTT CAGTTTGGAG
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 66851 AGGCTGTGGT GAGCTTGGGG CTGACCTCTT CTCCCAGGTA GCATTAATAG

CR1-L

66901 AATGAGAGGC CGTGTCTCTCA AGTTGCACCA GAGGAGGTTT AGGTTGGATA
 66951 TGAGGAAATT TTTCTTTTTT TGAAAGAGCA GTGAGATATT GGAACAGGCT
 67001 ACCCAGGGAG CTGTTCAAGA ACTGTGTACA TGTGGCACTG TGGGATATGG
 67051 TTTAGCGGGC ACAGTGGTGG TGGGTTGACA GTTGGACTAG ATCATCCCAG
 67101 AGGTCAATTT CAACCTTAAT GATACTATGA TGCTATGAGT TTTTAGATAA
 67151 TAAAAAGAAA GGTGCTCAGT ATTTTATCTT GTTCATTATC AGGTGCTCCA

U gene exon 2

67201 TTTACAAGAC GTCAAAGATG TTTCTTTTGG GTTTCAAACG GTAAGTGCAG
 67251 ATGTTTCCAA ACTCACCTCT TTCTTTGCAC TGAAAATGGT CAAGCGGCTC
 67301 TTTGTAGACA AGTCGCTCAG CCCTACCACA GTAAGTACTG CAGAAAAGTG
 67351 CTTGAATTGC TCGACCAACC AGACTTCAAT GTTATTCAAA ATACGTTCTC
 67401 TCACTATTAG CTTTTACTTG ACTAGACTCA GATGATGAAC AGCATAATAA
 67451 GAGTTTGTAG GAGGATGATT GTTCTGCTTG ACCCCAAGCA ATGCAGCCAC
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 67551 TAGGTTTTGA ATGCAATATG ACTTCTATGC CACATCAAGG GCTTTGCAAT
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 67651 CTAGTCCACA CACCCAAGTA ATTACTGCAT AAAGAGTAGT TTTCTTAATC
 67701 TAACTGAGGA GGCACAAGCC TGTTTATTCA AACAACACAA GTGAGGAAAG
 67751 TGTTGTTTGG CCATGAAACT TAAGGACCTT GCAAACAAC GAGAAAAATG
 67801 TTGTGTTTGT TTTATCAGAG TTGCCTTTGA ATAGGGCCCC AAGCAAGGGC
 67851 AACTTCAGCC TAGAAGTGAT GTTTCAGAAG ACTCACAGCC TGCTTGAATG
 67901 GTGTTATAAT CAGGTTGCCT GCTTTTGGC CCCATCCACA GCAGTGAGCA
 67951 TCTCACCTGA CAAGGATAGG CACACTGTGA GCAGCCTGTG GCCTTTGTCT
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 68151 GCGTGTCTCT GCTGTCACCT GCTGTTACTT ATTAGCTGTC CTTTGTAATA
 68201 TACTCTCTGC CTACACCGTA ATGAAGCTTG GGATACTGGT TTTGTAGGCC
 68251 GTGTGGAGAG TCATCTAGTG AAGAACATCT AAGGAAGGTT AGCTTTGGTA

U gene exon 3

68301 CCTTGTGTCT TTCAGGACTT TGTTAACTCC ACAAAGAGGC CTTTTCCATC

68351	AGAGCTGGAA	CTAGTGGAGT	TCAAGGAAAA	AACTGAGGAA	ACACGGCAGA
68401	AGATCAACAA	ATCTCTCTCA	GAGCTAACTG	ATGGTGAGTA	GGGCCTAACC
68451	TCGGGGATGC	TGATTACCTC	TTTGAAGAAT	GATGTCTTTG	TCTTCATGAC
68501	ATCTCCTAAC	TATTGCTTTT	AGAAGTAAAT	ATACAGTGAA	AGCAAAGGGA
68551	CTGCACCTAT	TATTTGGATT	CATGAGGATT	AGCTGTGTTA	GCATGTTTTA
68601	AAATCATTTA	CTTTACTACT	GTGGCATTTC	TGGAGGCAGA	CCTTACATTA
68651	GCCTTTGGCA	AAGCATCTCA	TTTGTTTTCA	TTGGGAAAGT	TTGGCTCCTG
68701	GCTGCAGAGC	TTCACAAACA	TCTGACATCA	ATACATCAAA	TCCTGGCCCC
68751	GTTCTCTAAT	GGAGAGTATG	TGCTGAACTC	TGAATTTTCA	GCTGTTAATT
68801	AGTAGCTCAT	CTCAGCAGCA	CAGCTGATTT	TGACCACAGG	TGGACATGTG
68851	TTTCTTACTT	GGAAACACTC	CCGTGGCAAT	AGTTCTGCAG	CACTTTTCCT
68901	GCAGTACCAC	TGAGCCACTA	AGTCACAAGA	AGTGCCTCTC	AGTGACCATC
68951	AAGGCTCCCA	GGCAGAACCT	GCCAGTCTG	TGCAGGGTAG	AGGTCTGGTA
69001	CGCAGTCCCC	AAGGCAGAGC	TCATGTACAT	GCTGTCCATA	GGTAGCTCCA
69051	GGGTGTTTGG	CTGCCTATTG	CCCTCATGTG	GTACACATAT	GAAAATATGG
69101	GTGCCTGAGT	TACATCTGCT	CCATCCCGAG	GTGACACAGG	TGCCCCACAGG
69151	GAAGTACTTT	GCGCTGCCTG	TGTGATTGTG	GCATGAATGA	AGACTAACAT
69201	CCACAACACT	GTGGATTGAG	TGCCTCATGA	CAGTGTTTGA	ACAGACACAA
69251	AATAAAGCAA	GGGAAAGAAT	TACGTTCTCT	TTTTGAAATC	CATGGCACTA
69301	TTTGGTTATG	AACTGTAATT	AGATGGTTAG	CGGCATTTCT	TATTCGGGTT
69351	TATTCTTATG	TATCACTCCA	AAAGTGAGTA	GAAGCTAAAC	TGGAACCTCC
69401	CTTGAAGTCT	CGCTCTCCAA	ATGAGAAATA	TTTTTTTTCAG	TTCTACCTGC
69451	TGAATTTTCG	TGAAGTTTCA	GTACCTTCTT	TAAAGTACTA	AAGAAAAGCA
69501	GTAGACATAT	TTTTTATTCT	GTTTTATGTA	AACCGAGTAA	AAATGTCACT
69551	TGGAAGATCT	GTCTTGATCC	CAAATTCAT	TTTAAACATG	GAGCTGCAGC
69601	TAAGGAACTA	AATGCTTCTA	TTTGGGGATT	TCCCTTTATA	ATTAAAACATG
69651	CTATCTGTGA	GGTGCAGGGC	AGAAATATTT	TAATTCAGTA	CAGTGTTTCC
69701	ATGTTCTGTG	AAAACAGCAC	ATATGTTGAT	AATTTACTGT	ATTAATGACC

U gene exon 4

69751	AGCTTAACCA	TCTTCACAGG	CAAAATGGAG	AATATTCTGA	ATGAGGACAG
69801	TGTAAGTGAC	CAGACTCAGA	TCCTCCTAGT	TAATGCAGCT	TATTTTGTCA
69851	CAAACTGGAT	GAAGAAGTTC	CCAGAAGCAG	AGATCAAGGA	ATGTCCTTTT
69901	AAAGTCAACA	AGGTACGTCC	TGAAATAAAA	TAGAGTACAC	CTTCTACTCA
69951	GATGAATGTT	TGCCAATTTT	GTGCTAAGGA	AATTTTCAGT	AGAGCAAGTG
70001	AAAAATATTT	GTTACTACTA	TGGCATTCTT	AGACTCTCTG	TCAAAACCTA
70051	TGTGCTGTTG	CAAAAGTACC	TAAGCCAGTT	TTCTTGTTAC	GTTGCTAGTT
70101	TGAAGCTGTT	GGTGAAACAA	GCACTAAAGG	TCACCGATAG	TAGGTAATTC
70151	TTTCCTTTAA	AGCACATCCC	CAGTATATTG	TATTAAGTAC	ACCTTGTCAC
70201	ATGAAAACATG	CTCCCCTTAA	AGTACCAACA	GCTTTCACATA	GCAGTCTTAC
70251	AGCTGATATC	GTTACTTACA	GAAGCCAACA	AATTCCATGA	TGGTAATCAA
70301	TGTACCACTT	TCATGCAAGC	TTGCAAAGTT	TCCTCTCTCA	TCTTCTCTGT
70351	GAATTAAAAG	GAGTGCTAGA	TTGTCTCCTC	TTGTGTTTTG	CAGACTGAAA

U gene exon 5

70401	CTAAGCCAGT	GCAAATGATG	AATCTGGAAG	CTACTTTTTG	CCTGGGTTAT
70451	GTGAAAGAGT	TGAATGTTGC	AATCCTTGAA	CTTCCATGCC	TTAACAAACA
70501	TATAAGCATG	CTCATTCTGC	TTCCCAAAGA	CATTGAAGAT	GAAACGACTG
70551	GCCTGGAAAA	GGTGAGAGAA	AAAAACAGTA	CTGAGATGAT	GCTTTCCATG
70601	CACAGCTGTG	TCGGTTAGCT	GTGGGTAGCT	TGGGTAGGGA	CTGTCTTCCT
70651	TGAATTCCTT	CATTGGGTTG	TTGAGCTGAT	TACATAGCAA	ACGCTTGTTA
70701	AGAACCAGTA	ATCAGAGTAT	GCACATTTAG	TGGAGTTTCT	CTGGAAGTCT
70751	ACTCTATAGG	TTAAATAATC	ATTATATCAA	TATAACTGAG	AGTGTAAGTT
70801	AACTCTGAAT	GCTACAAGCA	AAAGTTGTCT	TTTGGACTTT	GTTTTTTTGG
70851	GGTTTGATAG	GACTGATGAG	TTCAGAAATG	GTCTTTTTGT	TCCCACTTTC
70901	TCTGGACTGC	ACATTAATTT	CCTTTGTTCT	TTATGTCCTC	AGCTGGAAAA

U gene exon 6

70951	GGCACTCACC	CCTGAGACAT	TATTACAGTG	GACCAATCCC	AGCATGATGG
71001	CCAACACCAA	AGTGAATGTG	TTTCTTCCAA	AGTTTAGTGT	GGAAGGCGAT
71051	TATGACCTGA	AGCCACTCCT	GGAAAAGCCTC	GGCATGACAA	ATGTCTTTAA
71101	TGAGAGTGCA	TCAGATTTCT	CTGAGATGTG	TGAAACCAAA	GGTGTGGTTT
71151	TGTCAAAGAT	CATTCATAAA	GTCTCCTTGG	AAGTAAATGA	ACAGGGTGGA
71201	GAGTCTCTAG	AGGTACCAGG	ATATCGGATT	CTGCAACACA	AAGATGAATT
71251	TAAAGCTGAC	CATCCGTTTA	TCTTTTGTGTT	TAGGCACAAC	AAAACTCGCA
71301	ATGTGATTCT	TTCAGGCAGA	TTCTGTTCCC	CATAAGCAGA	GAATATTAAT
71351	TATGAAAAAG	ACCATAAAAT	TATGGTGATG	CATGTTCTCTG	TAAAGCTTGG
71401	TGTCCTGACT	ATCACCTTTG	AAAGGAATTC	TAAGAGGTTT	ATATATCAAC
71451	AGGGTAATAC	AATGTACTCT	ACATATGCAG	CAGAACTAGT	TTATTTTCCTT
71501	TTATTTAATC	CCCTTAAGCT	GAAGGATTCC	CACTGTGCAG	AACACATGAT
71551	ATTTGACTAA	GAAGTATTCC	ATCCTCATCC	ACGAGAATAT	TTTGTTCCCTC
71601	TGTGACATCT	TTTTCCAAAA	CAAAATGAAC	AGAGAACCTG	TTTTTGAAAG
71651	ACTAGGAGCT	GGAAGAGGCT	CTGGGGGAAA	GAGCTGCATT	CCTGTTTCAT
71701	ATCCAAAACA	CCTTCCCTTG	AGACTCATA	TCCTGCCTA	AAGGGGGAAA
71751	ATGTGGACAT	GTGGTGTGAT	AGCCCTCCTC	TTGTACTTGG	CTGTAGTCTG
71801	GTGATCCAGG	GTGCCCTGCT	GGACCCTGCT	AATGCACGGT	GAAATAGTGC
71851	AGCTGAACAA	CTCAGAGTTT	GCATCTGTGA	AACAGCAGCT	GCAATATGGA
71901	TGCAAGAGGC	AATAATAAAA	CACCCAGAAG	ACTCTTCAGT	GTGTGCTACC
71951	TCAGTTTGTA	GGTTGGGGAG	GTTGCACTCT	ACTGTGTGGG	ATTTTTTCAC
72001	TCATTCTCCT	TCAGACATGG	CAGAGGTGAC	CAGTTCACTG	CAGCTGAGAG
72051	GAACCTCTGT	GTATATATCC	TGAGAAAAAG	AAGGCTGTGC	AGTTCTAGGA
72101	TAGAAATCAC	TTGGATTAAT	ATTGAAAATG	CCACACTCTT	CAGATACAGA
72151	TTTTCTGTCA	CTTCTGGATT	CAGCATTAAG	GAGGCTCCAC	ACGTCTACCT
72201	AACCTCTGGG	ATTCAAGAAA	GAAATAAAGG	CTTTGACTTG	AGTGAGATTA
72251	ACACTGTAAT	TAGAAGTCTC	CAAATTCCAT	ATGAAATTAT	GGTAATTAGT
72301	TTTCCTTTCT	ATCTAAAGAC	TGCCTGCTGC	ATATGTTTCA	TACTGATTTA
72351	CCTAATTACT	GTTTCAGAATA	AAGCACTACA	AAACCTGTGT	CAAAATGTCTG
72401	TAGCACATCC	AGTGTCACTC	TGTTCTCCTT	CACTCAGCTT	CCAAGAGGGG
72451	ATAGGAACAG	AAATTGGTAG	ATTCATTTCAG	GACACAGTTA	AAATAAATAT
72501	ATGAAGAAAT	TAAATCTGTG	ACTGAATTGC	CCTTTTGGAC	CACACGATAA
72551	TAGCTGACAA	TTAAGGAGTA	TAGTACTATT	TGGTCAATAT	ATAGAGTGAG
72601	TTCAATTATA	TATCTTCAAA	GAAGGGGCCA	TTTTAACTGA	GTATTTCCCT
72651	TGGTTCTTCA	GATCTGAAAG	AACCTAGAGA	TTTCTAAATG	GGAACATACA
72701	ACCCTTAATA	CATATTCCTT	TCTTCTCATA	GCAGAGAACA	GCACAGTGGC
72751	TATTATGGAT	TTGGAGAGAG	TTCTGTTTTG	ATTCTTGGCG	TTCCCAACCC
72801	ACATGTAGCC	TTCAGTCACA	AACGTTTCAGG	GTTTCACCAG	TTGTCTTCCC
72851	TCTGTGAGTC	TCTAATGCTC	TCTGACTTAT	CTTAATATCA	GACAGTTAGT
72901	GGATACATTG	GTTACATCT	TTGAAGGCAC	TGAGGGGACT	AACTCACCAA
72951	AACCAACAAG	AGATGAGTCC	CTGCAGGCAT	CTGGGGGTCT	CTGCTGCTCT
73001	TCATCAGGCA	CTCTGATACA	TAGATAGAAG	AATGCTATGT	GTAAGACTTA
73051	ATTTCATACT	GTCTGAGAGG	AGACAGCCTG	CAAAGACCTT	TACTAGCTCA
73101	ATAGCTTCAG	TGATAAATGA	GTGTCTGGAA	AATGTTTTAA	TGTGTCCCAT
73151	CATTGTCTGA	TCTGTTTTTG	AGGCTGCGGT	TGGAGTTATT	CAGAGCTGTC
73201	ATCACTGCGG	TGTCCCCTGG	TTCTCCCATT	GGTCTGGGCA	TTGCACGTGG
73251	GGTTGGCAGC	CGATGAGCAG	CTGGGCAGTC	TGTACATAGG	CAAGGTGGAC
73301	TGGTTGCCTA	CAGTCTGTGC	AGTTTCTCTG	TGTTTCAGCA	CTGACTCGTG
73351	GTCTAGTAAT	TGCAGGTATC	CAGCAAGCCA	AATCACACTT	CATTGCTACT
73401	GCTGTGCTGG	TCTGCTAGAC	TGATGAAAAAT	CTCTGTTAGA	CTGCCTCATC
73451	TCTCTTTTTT	TGCCTGGATA	AGACTTATTA	AAGGAGAAAA	GCTGATATAT
73501	CACTCTCAGA	TTTTCTAGAT	CACGAAAAACA	TTGCAGTGCA	GGAGCCATTTC
73551	AATCCAGCTC	ATACTCCATT	TAAATGCTGA	TCAGAACACT	TAGTGCATCC

73601 ACGTACGTTT CCAGAGAGCT CCTTGTGGT GCCTTTGCCA AGGAGGGCTA
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 73801 GGTTCAATTTT CCATATCTGC TTCTTCTCTC TGCTTTTGGG AAATAATTCT
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 74801 AACTTGAAAA ATGCCACATA CAGGCAATTG GCCTGGCTGG AAAAGCAGTG

CR1 - GG

74851 CGGTTTTGAG CCTTAGGTAT GTTACATGTG CAAGTGTTAG GTCCCTACACC
 74901 TGGGGAGGAA TGACTGCAGG TACCAGTACA GGTTAGGGGC TGAGCTGCTG
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 75201 GGGCCACAAA GATGCCTGGG GTCTGTAGC ATCTCCCTTG TGAGAAAAGA
 75251 CTGAGAAAAC TTGGGTTTTT CAGACTGGAG AAGATAAGGC TGAAGGGGGA
 75301 TCATATCAGT GATTACAAAT ACTTAAAGGG CAGAAGCCAA GTGAATAGGG
 75351 CCAGGCTCCT TTTGGTATCC TGTGACAGGA AATGGGCGAA AATTCAACAC

CR1 - b

75401 CAACAAGAGG AAGTACTTCT CTACTTTGAG GGTAACAGAG GACTGGAACA
 75451 GGCTGCCCCG AGAGGTTGTG GAGTCTCCTT CTCTGGAAAT ATTCAAAACC
 75501 TGCCTGGATG CTTTCCTGTG CAACCTACTC TAGGGAGCTT CTGTAGGAGT
 75551 GAGTTGAACT CAGTAATCTC CAGAGGTCCC TTCCAACCTC TACAATTCTA
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 75701 ATATAGAGAG CAAATCAAAG AAATGAGTGG AGGAACGACG TCAGTGTAAG
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 75901 TAAAGAGGCA GGAACAAATG ACTAAGAAGT CTGAAGAAAT ATGCAGAAAG
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 76101 GATCAGCCTC TCTTGGACTC CTATTCTTAG CTCCAGTGAT TTAAAAGAAT
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76201 TCTCTAATTA AAATCCTTCC ACTCACAGAA AGCTGGCTCT GTACCTGAAT
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 76251 GCGTGCCTAC TACCTGTAGG CAACATAAAG CTCATGCATT TCCTATTTCAT
 76301 TTGCTCTATT TCTGCAAGCA AGCTCAGCCC CAAACAAGGG ATCTCTAAAT
 76351 CCTAGCAAGA ACCCTGCACA CCCCAGTGTT CAAGTCCTGA CACCACCAAA
 76401 TTCAAAAGGA ACTACACACA GCACCACAGC CATGGATCTC CAGTGTTAAT
 76451 GCTGTTCTCC AGCTAAGGGC GACTTGGCTT TGCAGTCAGG AGATGTTGCC
 76501 AGGATGCCTC CTGTCAAACCT AGTTGGGCAG CTTTGAGCGA AATGCTGTTA
 76551 GCACATTGCT AGATATAGGT TTCCTGGTCT TCTGCAGGAA ACTGAAGGAT
 76601 GACATTTGCA TGAAATTACA ACGTGCAGCC TTTATCAACA ATTGGCTAGA
 76651 GACTGAATTT TCCCACAAGA AAGTGAAGA AATTTAAAT AGAGTATACA
 76701 CAGGAAGGTG CTCCAGAGCT CAGCTGTTGT GTTCTTCATT TGACCTCCTT
 76751 GCTCAAGAAG GTAAACATTA TTTTCTCTT CAAAAATAAC TTGTCTTGTT
 76801 GTTGTGTGTTG TTTTGGCCAA ATCAGTCTAA AAGTTGGTAA ATTTTCATGT
 76851 TATAGATGGG GCAAAGGGGG AAGTACTTTC ACAGGCTGGA GAGAGCAAAA
 76901 GACACTGCTA AAATTTGGGT GGTCTTCACG AAGGGAGGTG GTCTTCTCTG
 76951 GGGTGAGGCT GGGAAATTTAG GAACACATGC CCAAAGCTAT GAATCTAAAG
 77001 ATGCCTGTCT AAATTCCTCA GACTTTTGAC TGAAATTTCC CTCGGTTCTC
 77051 CCTGCCTGCT TGGAGAGCTA TAACTGCCAC AGACTGAGTG GTTTATACCA
 77101 CATGCAGATG CTTTGCTGCC TACATCTCCA GAAGGGTCAA AGGGCTGTTT
 77151 TAGAACAGCC CAACTCACTC TAAAAAATG GGCTTTATGA GAAGCGATGG
 77201 TGCAGATCAT CTGGATAAAC TCACCCATAA ATTAATAGAA ACAGGTAAAT
 77251 TTTCTTCTT TACTCAGGTT TCCACAGCAC AAGGAAAAGC CTTGAAATGT
 77301 TCACTAGACA AGAGAGGGCA CGCAACTCTT TGGTTGCGTG CTTGGGTGTT
 77351 TCCTCTGTAC CCTGGTCTCT GCTGCTAGGA TTGTTTATGT TCTTAAACAA
 77401 TGGCTGTATA TAATAGGAAG GGTGGAGTAT TCTTCAGATT TTGTTTGGT
 77451 AATGGGAATG CTTCACTATC AACATATTTG CTCCTGGCTT TGGCAGCGGT
 77501 GTTCAAAAAT TTGCTGAGAA GTTTATGTAA CTACACATTG GCATAACAAA
 77551 TAGCTTGCCA CTGTATGGCC AATGTACATC CATTCCTGTT CAAGCAGGAA
 77601 TAATCAGCCT AGAAAGAAGC AGGAAAGATA CATCCTGGAG GTACCGATGC
 77651 AAAATAATAG AACCAGTCAG GAAAAGCCCT TTCCTGTATA AAAACAGCAT
 77701 CATGAGGGGC TAAGTTGCTT GGGAGATGGA CTTGGCAACA CTTCTCCTGA
 77751 AAAGATATTT TGTGCTGAAA TGTATTGGGT TTTAATTTAA AGCACATTGC
 77801 TTTGGAAATG CTTTGTGTTG CATGGGGAAG ACTCGAATTT CTGCGTTAAA
 77851 GGAAATTTCA TTTTCTTAT GTGTTGTGTC CTTTAAACC CAAAAAGCCA
 77901 CAGAAACACT TTGAAAGTTT TTGTATGAAT GGTCATGAAA AATAACTTCT
 77951 ACAACCATAG GCTTTTCATG TGAGGACACT GTATTATCTG TTGTGTTCTC
 78001 CTTTTCTAGG ATAGACACGT ATCATTTCCT CCAATTCTCT CTCCTTTTGC
 78051 TTATGAGAAA TAAATGTATA TTAAAGCACT TAAATGAGAA GAAGAGTAAG
 78101 TATGCAATTG GAATTATCAT GCAGCATCAG GGAAAACAGG TTTCTTCTTG
 78151 CTTTCCCTTT CTACATATAG AACTGCCTTA CAAACCAGGC TACCACTCTT
 78201 TCAGAATCTG CATTTTATTT ACTGCCTCCT CCGTTGACT GCATAATGTA
 78251 ACATAACACA TCTTTTAATT ATGATAGCTT TGAGCGCAGC TTTTCATTCT
 78301 TCAGTAAGTT TTGCCTTGAT TTCATCTTTA GCCTAAAACA AGCTCTACAG
 78351 AGAGAACAGA GCGTGAACAG CTATAGAAAA GGAGTATTTT TCACTTCACG
 78401 GAGCCATGGA AGCAATTTGT TATCCTTACA AGACTTCTGG TATACAGTGG
 78451 TATCTACGGA AGGAGGCTCT TTTCTGGGT AGATCCCTGC TCACATATAA
 78501 CAACGCCAGC AATTCACCT CCCAGACTGT TAACAGCTAC TGAGCCATCA
 78551 TGCAAAGCAT CTCCCTTCAT CAGCCATAAA ACCACAGCCC TGCTTGCTGC
 78601 CTCTGCACAA TTGCTAATGT TCTGTGCAAA CAGTTTGTCT GGTGCAGAAC
 78651 AACAGCTGTG ATCTTCTGG AACACTTCTT TTGATCTTGT ATTTCTCTC
 78701 CTTCCCACTC CAAGATCTTT TAAAAAGAACC ATTTCCATTT GTTGCCCAAC
 78751 ATCTAGGTGT TCTCAAAGTT ACTCTGCCCT CACGGTGGCT CCAAAACTCA
 78801 CCAACAAATG ATTACAGAGA TCATAAGCAT GGCTTAATGA TGTGGAATCA

78851	TACCTACACA	TACTCCCTCT	CCAAATATCC	ATTAAGAAAG	TTCACTAAAT
78901	CCTTTGGTTC	TCTAGTAAGA	AAGTTCCTTC	TCCAGCCCAC	ATCCCTTCTC
78951	CCTCCACTGT	TGCATTGCTT	TTCTGGGGCA	GCCCTGTAAA	TAGCTCACAT
79001	GAAGCCATGG	AATTGGTGGC	AGTGGTTGTA	CCTGGACGTC	ACTCTGAAGA
79051	CAGTCTGCTG	CTTTTTCTAA	AGGCATGGAC	ACCTCTGTAC	GCCAGACGCT
79101	TGCCTTTAAG	ACCTGTTTCC	AGCTCTCATG	CTCTCCCTCT	GTGCTTGGTG
79151	GTTGGTTCTT	TCCCTGTGGG	TTGGGGTGGG	GGTGCCTCTC	TTCTGTTGAG
79201	GAAGTTCATT	AGCTCCTGTT	GTCTCCTCGA	CGCCTTCTGA	GGTCTAGACA
79251	CACCTACAAC	ATGCATCCTG	ACCTACATTC	ACAGTAAACA	ACCTCTTAGA
79301	TCCATTTTAG	ATCTTTTACC	AGCTGTGAAA	GTGGAGCAAC	ACAAACTTTA
79351	ACATGAAAGA	AGTGCTGAGT	TTTGTTTTCA	GAAGGTTGTG	AATAATAGCT
79401	AACGAGGGTG	GAAGAAAAGA	GAAATGATTA	CTGCAATGTG	TTTTTCTTGT
79451	GGTAGGATGA	CTGCCCATT	ATGTTAGGCC	TTCATATGAA	GTACTACTGG
79501	ACTTCAGGGT	GAAACAAGTG	TCTTAGAATG	AAACATATAT	GAACTTTTTA
79551	TTTCAAGTTA	GGTAAAAGGA	AATAAATGCC	TGCATTGCC	ACATATCAGC
79601	ACCTTCATAT	GTTCAGCAAC	TTGACTTTCC	TGTCAATCTA	TCTTAGGCTA
79651	AGCCTTTTTT	CTTGTGGGCT	GAGTTCATTC	CCATTGTCTG	GGACTTGCTG
79701	CAAGCTAAGC	TGCTCGCACA	GACAACTTGC	TGCACCTCAG	CAGAGCCATA
79751	GCAACTTCTT	ACACCCTGTT	AACTTTGGTG	CCTGAGCCCC	CACTTGTCAT
79801	ACAAAGATCC	TGCCTGTCTC	ACACCTGAAT	GAGAGGCAGT	GTGTGTTCCG
79851	CATCCTTGCA	GTCAGTGCAG	GACGCTGAGT	AGTTCTTGTC	CCAGAGCAGG
79901	CTGAAAGCTA	GAGCCACCCT	GACCTGAGTG	CTTTCTCTCC	ACACTGTGCT
79951	ATATATTTTC	CCCTAAATAA	AATATCTTTC	TGGAACACAG	GCCACAGTTA
80001	CTTATGTCTG	CAAGCAGCCA	AGAGCATATG	CTTTGCTTTT	CTTACATATT
80051	TCTGGTGTGC	TGTCCAGAAC	ATCCTTTGTT	TGACACTAAA	ATTGATGTGT
80101	GCTTTTTTATG	GTACAATATT	TTGAGAAAAA	CTTGAGTACT	CCACTGCTAT

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80151	CCACACAACA	GCTTTACAGT	TATTTCCCTA	AAGGACTGAT	AAGGGCTTCT
80201	TAAAAGCCTT	TTTTTTTTTT	TTCAGATGGC	ATTCTTCATG	AAAAGACCAA
80251	GCTGAAACTT	AGTCCCAAAT	TCTTCTTACC	AGAGTGGATT	TAATGGCCCA
80301	TAGGAAAGGC	ATCAGACTGC	TGTATTTACA	GTACAAGAGA	AAAGAATGAG
80351	ACAGATCTTG	TCCTGCCATT	GAACAGGAAG	CTTACAGACT	TTCTGGGGCT
80401	GCTGAGCTAT	TGCTTCGTTG	TGAAATTGCC	ATTCTGTTATC	CATTCTGAAT
80451	CAGTGGTTCC	TATCAAATCA	ATGAGGAGAC	ATGAAGTATA	CTGCAAACAG
80501	TGCATGTTTC	CATAGGTAGT	AGCATTCATA	GCTGCTTACG	TTCTTCTTTC
80551	ATACATGAAA	ATAATTACTA	GTAATTTTAC	TTTCATGAAT	CTGTTGTTTG
80601	AATCCTTCAC	ACTGCAGCTC	AGGTTACCAG	ATGTGGTTAG	ATGCCCCGTG
80651	AGTTTCTGTC	ACCCCAATCT	GTCTCTAATC	ATGTTGTTAC	AAGAGGAAAG
80701	AACTGATGCG	ATGACACACA	TTAAACTAGT	TTGTAGAAGG	AAATCCACGG
80751	CTGACTGATT	TAAATACCAC	AACCTTTTGC	TTACAAATAA	GAACAAGACA
80801	GACAGACCAC	GGGAAACTCT	TTTGGAAGGG	ATCAGATACA	TTGTGGGATA
80851	AGATGGAAAA	ACAATTCTCT	CTAAGGAATT	CTCATATGGT	ATGAGTATTG
80901	GGGCCCCTTT	CCAGATCCTG	CTGTATTCAC	ATGAGTGTGA	ATTAATAGAT
80951	GTGTGCAAAA	TCAGCTATTT	CAAACCTCAGA	ATTCTAGCACA	CTTCTACTAT
81001	TTAGCAACCG	ACTATGGGAT	GATTTTAGGG	CGGACAGATA	CTTCACAGTA
81051	TGATACAGAT	AAGCAATCAG	CTGATTCACA	TTTCTCCTTT	CCCTTTTTTG

V gene exon 1

81101	TCCCAGTAAG	CTGCAGGCTT	CACAATGGGC	TCCATTTCTA	GAATGATTAT
81151	TGAGTTTTGC	CTTGATCTCT	ACAATAAACT	CAACAGAACA	GCAAAAGGCC
81201	AAAACATTGT	CTTCTCTCCA	ATGAGCATCT	CTACCTCCCT	TGGCCTGATC
81251	CTTCTAGGGG	CACGAAACAA	CAGTCTGCT	CAGATAGAAG	AAGTAAGTAC
81301	TGCTGAAATG	TTCTGAGATA	CTTCCACATA	GCCTGCTGTT	CCCCAGTGG
81351	CAATGCTGGG	CTTGCAGCA	CAACATGTGT	GCTTAGGAGA	CAAAGATAAA
81401	CACAAGCTCA	ACTGCTGCCT	TGAGAGCAGT	GCTTGGTGTG	CTGTGATCCC

81451	TGCTCACTTA	TCAACTGTGA	CATTCAAACG	ATTCAACATG	TCTCACCTAC
81501	AGAGCACACG	GAGCCTGGGG	GTACAGGGTG	GGCATGCAGA	AGTCTGTTCC
81551	TCTGGTCACC	ATGCCTTTTA	CTCCCTGCAG	TGCAAGCTGT	ATGCTCTGAG
81601	ATCTTTTATT	TCTTTTCTTA	TTTGTCTCTG	AGAGCAGTAA	GTGACCAATA
81651	CTCCTAAGGT	ATATGTGGCA	TAAGGCAGTA	GCTGGCTCTG	GCTGTGTCCT
81701	GGTGGATCTT	CATCCATTGT	ATTATAATAT	TGCCACAGGT	CAGCTGCTGC
81751	CAAGGGAAAC	TCATTCTCCT	TATGAGGTTC	TGAGTGACTC	TTGCTTAGTT

CR1 - c

81801	TAGGAAAGCA	ATGGAGATCG	AGTACTCTCA	ACAAGGGGGA	ATGGCGTCTA
81851	ACTAAAAGAG	CGGAAATTTA	GGTAAGATGT	TAGGCATATA	TTCTTTACAC
81901	AGAGGGCAAT	GAGGCACCAG	CACAGGCTTC	CCAGAGAAGC	TGTGGTGCGC
81951	CATCCCTGGA	GGCGCTCAAA	GCCAGGTTGG	ATGGGGCCCT	GGGCAACCTG
82001	ACCTGGTGGT	GGCATCCCTG	CCCACAGCAT	GGGGTTGGGG	CTGAGTGGGC
82051	TTTGAGGTCC	CTTCCAACCC	AAACCTTTCT	ATGACAGTTA	ATAAATCTAC
82101	ATCACTTATC	CAGGACAGCC	CAGTAAATCT	TTCAAACAAG	GAAAATGCCT
82151	TTATCCCACT	TAAAATTGCC	ATTAATTTGA	CCTCTTCAAC	TGCAGGTTCT
82201	CCACGTCAGC	AATGCCGCAG	GAACTACAAG	CCTTGAATCT	GAGCTTGAAG
82251	GTGCAGTGCC	CGAAAACAAG	TCTGAAGTAA	GCCAGGAAAG	AGAGTCTTCC
82301	CCCTCTCTGG	TATGTCTTTT	TTAGTACAAG	AGTCTTTTAC	TCCACAGTAG
82351	CCTATTAGTT	GTAAAGCACC	ACAGCCTGCC	ACAGGAGGGA	GTCAAGATCC
82401	CATGCACAAC	GTCTGCCTGG	TCTACTACGC	CTGATTGAAG	GTGTTCCCTT
82451	GTAATCAGCC	AAGTCCTCCA	TAAAGTCAAA	TACAAAGCCC	CCACCAGAAG
82501	GAAGATCAGG	TTACAAAAC	TAGATTAGCT	GAATTTAAAT	ATAATTACAG
82551	TGGGAGCTAG	CCCTACACTG	CAATCTAATG	AGGATGCAAA	TGAACAACCA
82601	AAGCTATACT	GAGGAATACT	TGTAATTGGT	GTGTTTGAAA	TATTCCTAGT
82651	GCAACACAGA	TGGGAATCTT	AACCACGAAG	CGTTCCATGC	ACTGCTTTTA
82701	CAACTACAAA	ACCTTGSCAA	AGACTATGTT	TTAAGCCTGG	CTAACAGCCT
82751	CTTTATCCAA	CAAGGATTTG	AACCGCATCA	GGTAAGATAA	CTGTACCTTG
82801	TAACCTCTGT	GGCGCTGACC	CCCAGCTTTC	TGGCAACCAT	ATGCTTCACT
82851	GTTGTCCCTC	CATGTGTATT	TTTGAGCATT	GGAGGTGCTT	CTTGGAGCCA
82901	TATCTCTTAG	GGTTGTTGGG	AAAGAGACAG	AAGTATCAGC	TTTCAGTGCT
82951	TCTGTTTAAA	ACAAACAAAC	AAACAAAGTC	AAGACAACAC	TCTGTAGAGC
83001	AAAAATAAAG	CAGAAGACCT	TTGACTTTTG	GCATATCTAA	CTTGAGCCAG
83051	AAGTGCGACT	ACAGCAAAAA	AATGGCCTAT	TCAAGCTGTC	TGCAAGCTGC
83101	TTCTGGGCTA	TCTTTCTATT	TGCAGCTTTG	CATTGCTGGC	TTTCCTCTTT
83151	TTCTTCTTTC	TTTCTTTTTT	TTTTTTTTTTC	CCCCTGCTGA	ATGATTGGA
83201	TACTTGAGAA	TCACCCAACA	CATCTTGCAT	CTTCTCTAAT	TTTTTTTTTCT
83251	TTTCTATTTT	TTTAAATTTT	TATCTGGATA	CCTGCATACT	TCAGGTATGC
83301	AGTTTTCTGT	GGGAAGACAT	TGTCATCTAG	AGGCAAAAAT	GTATATAAAT
83351	AATAAGAAAG	ACACAATAAT	AATCTCTTTT	TCAAAGATTA	TCTGAATCAG
83401	CTTCTGATAG	TTGATGTTTC	CAAAGCCAAA	TTTTGTCTCT	TTCACTCAAG
83451	AAGACCCTCA	GAATTTCTAA	AACGTTTCTG	AATTGTTGAC	TTCATGTTAA
83501	AGAGAATAAG	CTCTGAACAG	GTTTGGCTAA	TTACAATCT	TTATTCTGCT

V gene exon 2

83551	TTACAGAAAT	ATCTAATGTG	CAGTAAGGAA	CTATACAGAG	CAGCCCTTGA
83601	AACAGTGGAC	TTCCAAAGGG	CTCTTGAAGC	AAGCAGGCTA	AAAATTAATG
83651	ATTGGGTTGA	AAGCGAGACA	CAAGGTAAAA	CAGAGCAAAA	CTGTAGCTGT
83701	GCTATCTTCT	CCCTCTTCCA	GTGCTCCTTC	AAAAAGAATT	CAGCATATGA
83751	TAAGTCTTGT	TCATGTTTCT	AGGTTTCTCA	TGCCCGTCAA	AGATAGTTTG
83801	TTGTTCCCAA	TCATTCTTTA	GAGTCATCTA	CCAGCTAAAC	TATTTCTGAG
83851	TTAAAGATGT	GTTTGTGTGC	ACATACTGTC	ATACTCCTAC	CCACATGCCT
83901	AGCAAGATAA	CTGCAACAGT	ACCTCTAAGG	GTTAAATAGA	TTAATTGCTC
83951	CTGCAATAG	CCAACACTGC	AGGTACAGTA	AAGCAGAGGA	CGGAAGTTAT
84001	GAGCGTCACA	GTGAGACTGG	GAACAGCATA	GCAGAGAGAG	AAGACACCTG

84051	AGGACCTGGT	GTTGACCTGC	TCTGGTCGTA	CACAGAGCAA	TGCTAACAAA
84101	GATGAGTGAT	GTGCCCACCA	GAGAGATTTC	ACTGTTACAA	GTAACAACCA
84151	ACCAGCTTTT	GCCCTTTACA	GGCACATAGA	GGTCATTGGC	TTTTTTTCTG
84201	ATTAAGCTGA	ACATGAAATA	TGCCACTTTT	ATTTTGTGAG	AGATGCAACA
84251	TCAGCAGGGT	GAAAACCTTA	TAAATCTTCC	AGCTGAACTT	AAGCCAGAAC
84301	TTACTGAGGG	AAATTACTGA	TGGATGAATA	GATTTGAAGG	CTTCTGATTT
84351	CTTAATGGTC	ATATCCTGAC	CAAACCTGTC	CTTGGGCTGA	CAGAGCAGCC
84401	TGTGACTAAT	GTGGGAAAGA	GCTGCAAACC	CCAGACCATC	ATTGCTCTGT
84451	GTGCCTGTAC	AAAGCCTGCG	CGCTTGGGAA	ATCCTACTTC	ACCTCTGTAC
84501	AGAAAAAAA	AGGGTAAAGG	GAAAGATGCC	CTCATGTAAA	CTGAAACAGA
84551	GGATTAATGG	CGCTGCGCCT	TTTACTGTGG	ACAGGTGCCA	CCTGGAACAT
84601	TCATTTTGCC	ACTGATCCCA	CAGTAGGCTA	ATTTGATGAT	CGGTGCCCCCT
84651	TCCTCTCCCT	AACAGGCCAG	TACTAGGTAA	CAGTGCTGAG	AAATTTACCA
84701	TTTCTTTGCT	TGTATCGTCC	CTGTTCTGTG	AAGAAACAAA	CAGTTGGATT
84751	TCTAAGGTAC	TCTAAAGCTA	AGTTCACAGA	CAAGTAATTG	AGTCTCAATC
84801	CAGAGCCTTA	ATAACAACCTA	ATAAACACCT	GTGTTTTCCA	AAATTTCCCTC

V gene exon 3

84851	CAGGTAAAAT	CAAGGAACTT	TTTGCTCCAG	GAGTGATTGA	CTCACACACC
84901	ATTCTGGTGC	TGGTGAACGT	GATCTACTTC	AAAGCATCCT	GGGAACACAA
84951	GTTTGAGGAG	AAAAATACAG	TACAGAGAGA	TTTTAAACTG	AATCAGGTAG
85001	ATATGCATTG	TATAAATCTT	AGCATGATTT	ACCTGAGTTA	GCATGATTTA
85051	CATGAGTTGC	AACGACTCAG	CATTTTGTTT	CAATGGCTGA	CAAAACACAA
85101	AGCTTCAGCC	CTGATCAGCG	CTTTTGAACC	TAATAGTCAC	TATGGGCAGC
85151	TGTCATGGAT	AGAAGCCAAT	TGCAAAGATC	TCATTTTACA	CAGGCTCTGT
85201	GGGGCCATCC	TGGCTTTTAT	GCATCCCGTA	CAATTCAGCG	TGAGCCATGC
85251	AACAGATAGG	TTAAACCAAA	CCAATCAAAA	AAAGAGGCCA	GATATTAACA
85301	AGCCACATAT	ATGAAGATGG	AATTTGAAAC	AGGAAAAATC	CTCACAGAGT
85351	GTTTTGGTTT	ATTTATAGTA	TCTGCAATGT	TTAAAAGGTT	TTTTTTAAAA
85401	TATTTTTTTT	ATTTTGATTTC	CTTTTTTCCA	CCGTACATAT	AAAATGGAAG

CR1 - GG

85451	TTTTCATTCG	TCAACTAAGG	TACAGAATCA	TAGAATTACT	CAGGTTGGAA
85501	AGGACCTCAA	AGATCATCAA	GTCCAACCGC	AGCCTAACCA	TAGTACCCTA
85551	ACTCTAACAA	CCATCTGTTA	AATCATATCT	CTGAGCACCA	CATCCAAACG
85601	GCTCTTAAAC	ACATCCAGGG	ATGGTAACTC	AACCACCTCC	CTGGGGAGCC
85651	TATCCCAGCG	CTTAACAACC	CTTTCTGTAA	AGAAGTGTTT	CCTAACGTCC
85701	AACCTAAACT	TACCTTGGCA	CAACTTGAGG	CCATTTCCCC	TCGTCTTGTC
85751	ACCTGTTGCC	AGTGAGAAGA	GACCTACCCC	GCTCTCACTG	TAAGCACCTT
85801	TCAGGTACTG	GAAGAAAATA	ATAAGGTCTT	CTCTCAGCCT	CCTCTTCTCC
85851	AGACTAAAAA	GCCCCAGCTC	CCTCAGCTTC	TCCTCGTAGG	ACTGATTTTC
85901	CAAGCCCTTC	ACTAGCCTTG	TGAAGCTGCA	AAAAGTTCTT	TAACAACCAC
85951	ATTAATCCAA	GCTCTGTACA	GCTCAAGTCT	AACAAATGTC	TTCAAAAAAG
86001	ATGATCAAAA	CCATTTTATT	TCATTTAATT	CAGTTTTGTC	TTCATTTCCAT
86051	ATGCTGTGCC	TATGTTACAC	TAAATAATGA	AGCCGCCAAA	AAAATGAACC
86101	CACAAAAAAC	ACAGATTTAG	CTCTGATCTG	AAGTTGAAGA	GCTTTGTATG
86151	GGAAAAACTG	TATTCTAAGT	GTTTCTTATC	TATACAAACA	AAAGGTCAGA
86201	AAGACATCTG	TTGCTAGCCG	TAGTGTTGCA	CTGCCATTTA	TTAAGACACG
86251	TAAGAAAGTG	TAATTTTGGT	CCCTTAATTT	TTTTACTTGA	AATATGTCTT
86301	TGAATTTGAA	TACTGAAAAC	TGACCTTAGG	TAGGAACATT	TGGAACACTG
86351	CTGCAGTCAC	AGAAACTATG	AGATTGGGGG	AATCTGCATA	TACTTTTCTT
86401	CATGCACTAA	TTAATAATGT	TCTCTACTAA	AATTCTTCCG	CTGATTTAGA
86451	AGGTAAGTAA	AAACTTAGCT	AATGGTGAAA	TGAACCTTGA	GCCTTTACAC
86501	AGGAATTTGAA	CAAACTCATC	ACAAAAGAAA	ATGAGGCTTA	GAAGACCTAG
86551	AAGAACATGC	CTGAGATTGC	TCTTAATCTG	TCTATTGCTT	CCTGCCTAAA
86601	ACATCTACCT	GATAAATGAC	AACCTGATTG	CTGCAGTGCT	ATTTCTTCTC

86651	TATCCCATTTC	CAAACCAGGA	CTTGCAAATC	CCATCAGCAT	CAGCTTGTTT
86701	GGCTGGAGAG	TAATGGTATT	AAGCCACTTC	ACTATCTGAT	CAGTTGCAGG
86751	GAAATTGCTT	TGTTTTATTT	TGCCCCCAG	AGAATTATCT	CCTTTATACA
86801	TGAATGGCAA	AACTGATGTT	TTACGTGTCG	TTGTATGTGC	AACAAAATAA
86851	AGAAAAAATG	TTTAGCTTTA	TAACAATTAC	TGCTGCAAAC	ACAGACTACT
86901	GATATTGCAC	CTGAAGTTTA	AACATTAAGG	TCTGTATTGC	TTGTGTGATC

V gene exon 4

86951	ATTCCAATTT	CTTTTTAAAT	AGAATGAGAG	AAAGCCAGTA	CAGATGATGT
87001	ATCAGAAAGG	CACATTTAAA	CTAGGCTATA	TTGAAGAGCT	GGGAACCTCAG
87051	GTGCTTGAAC	TCCCTTACGC	TCAGAAGTTG	CTTAGCATGA	TCATCCTGCA
87101	CCAGGAGAGA	CAGCAGATGG	ATCTCCCAGT	GGGGCTGGAA	CAGGTAAGGG
87151	TGAGGACTGC	GGCTAAGCCG	GA CTGAAAGC	TGGTTGTCTG	AATTAAAGCT
87201	GGGCAAAAAT	CTAAACTTGT	TAATTTCCCC	ATCTTCTAGA	CTGAAAGCAC

V gene exon 5

87251	AATGACCTAT	GAAAATTTAA	TGCTGTGGTT	CTCTTCCGAA	CATATGTTTTG
87301	AGATGGTGGT	AGAGGTGTAC	CTGCCCCGAT	TCAAGCTCGA	AGGCACCTTTT
87351	GACCTCAATG	AGGTATTAAA	AGCAATGGGA	ATGACTGACA	TCTTCAGTGA
87401	ATCCAAAGCT	GATCTTTCTG	CATTGTTCATC	TGAGAAATCC	CTGGTGTTGT
87451	CAAACATTGT	CCACAAGGCT	TATGTGGAAG	TCAATGAGGA	GGGTACTACA
87501	GCAGCAGCTG	CTACAGGAGC	TACCATTGTG	AGGAGGTCTC	TTCCCCTCAT
87551	AGAGGTGTTT	ATAGCTGACC	GTCTTTTCTT	ATTCTTTATT	AGGCACAATC
87601	CCACCAGTAC	CATTCTTTTC	TTTGGTAAAT	TCTGCTCACC	TTAAAATCAA
87651	GGCCATCTTC	TAGCATTTGTG	AGAAAAACCT	GGATGAATCA	GAAATACTAT
87701	TTTTCCCCCT	ACACCTTCTT	ATTCTATGA	ATGATTGTAG	ATCAAAGTAA
87751	TCACTGCAGC	CAACCTAGCC	TAGAACCATC	AATTGAATGC	CCTCCTGTTA
87801	TGCTCCTTGA	ATGGCAAATA	TTGATCTGAA	TCTAAAACAG	GAGTAAGTTT
87851	TCCCTTAACC	TGACTGGAAA	TCAAGAATAT	TTTGTTTCTT	CAAGGCGTAC
87901	ATACACTCCT	GTATAGCCAA	GTATGTCCGG	CATAGCCAAG	TAATGTAGTA
87951	CACATTTTGC	CTGGCAAAGG	TAGAATTTGT	ATGCTGCTAC	CTGAGGAGAA
88001	CTGTTTGTA	CAATTTTCAG	TAAGTCCAG	TAAAAGTGGA	GTATTTTTAT
88051	TTTCTCTGTA	GTTTTTGATT	TCCTGCCAGG	TGGGACTTGA	TTAACAGAGA
88101	GGGGCTTTGG	AAATGCTTTA	TACTTATACA	TAATCTGTAT	TTGTGGCAAA
88151	TCCTTCGCAC	AGTGGAGATC	TCCTTTGAT	AATTCCCTTT	CCTGTAGCAG
88201	CAGTCACAAG	CAAGCAGGAA	ATACCTTATT	ACAGCAAATT	CACGTGTTTA
88251	CTGACAACCTG	TACCACCTTT	CCCCCATGA	TGTATGCTGG	ATCTATCCTT
88301	TTGCCATATA	AAACGTTTAT	GCTAGAAGCA	GCTTTGGTTT	CATTTATTTA
88351	TTTAGATATA	AGCCTGCATC	TGAAGCACCA	ACTCATCAAC	TGGAAGATAG
88401	ATGGAATATG	ACATATACCC	CTTTCACAA	CCCTTGGTTT	TTTCCACATG
88451	AGTTCTGTTA	GAAGCACTGT	ATTTTTCCTT	TTTTAAGATA	ACAACAGTAG
88501	GAACACTCAT	GGAAAGGACA	AGATTACGCC	TCATGAACAC	ATCTAGTAAG
88551	AGAGTTGATT	ATAACAGCAA	CTGAGTATGT	GGGAAGGCAA	GATTTTGACC
88601	CTCGTTTTAC	AGGATTTTTT	GGCACTCTTT	TTTGAAAATA	AATCCACCCT

CR1 - GG

88651	TAAAGAATCA	CAGCATGGTT	GATGTTGCAA	GGGACCTCTG	GAGGACATTT
88701	TGTCCAACCTG	TCCTGTTTCA	GCAGGGCAAC	CATGTCCAGG	GGGCTTTTGA
88751	GAATCCCCAA	GCACAGAAAC	TTCACAACCT	CTCTGGACAA	CCTCTTCTGA
88801	GTTCCACAA	TTTTGAATGA	CACCAAAGAG	AATTTTGTAT	GCGCAGTGTC
88851	TGCAGGAATG	GGATGTGAAA	ACACACATTT	CTAAAGCTTA	ATTACTTACA
88901	TAGTGAAGTA	ATTGGTTTTC	TTCTTGAGT	TCTGCTCTCT	GGTGAAGTTT
88951	AATGATCTGA	GATGCATGTA	TATAGATATA	CAGGTCTCTC	CAGCCCTGAG
89001	GAATGAAGAA	AAGTTTGTAA	AAGGGCAATG	TAAGCAATAG	AAATCACAGT
89051	CAAATATTAC	CTGGAAAAC	TTTTAGTCTG	AGAGATAATT	AGAAAAATAG
89101	AATTAGCAGC	TGACTGATAG	AGAGACATAA	CTGTTAAGTT	GCTGGTTTAA
89151	CACAAGTAAT	ATCTTCCTCA	CAGAGTTCTA	TGTGAGGTTT	AACTAACTAG

89201	CGTTGGCAAC	TTGTGCTTTG	TGACCTATAA	AAAGGCAAGT	ATACATTAGC
89251	TATTAGTCAT	ATAATTGAGT	GTAAAGCTCC	ATAAAGTAAT	TCATGATTAG
89301	CACAGTTTAT	GTACCAAAAG	TTACCTGCGG	CTCTTTGGAT	AAGAAAGTCT
89351	AGGCATGATG	TTCGAGCAAG	AACAGGCAGG	AGTAGGACAA	TAATATTCAA
89401	ACAACCTACC	CTTACTGACT	AATCTGAAAG	CACAGTACAA	TGTAAGCAGT
89451	ACTTTTCCAG	ATTGTGTCCA	TGTTTCCATT	CTGGAGGCTG	ACAGCACAGA
89501	TTGCCTACTA	AGCTATGTTT	TTATTACCTC	CAGGTGTCAT	CACTTGGTTT
89551	TTACATACCC	TGGGGAAGTT	CTGAGCACCA	CAACCTCAA	CATCAGTCCC
89601	ACTTCTGCAA	CGACAGGAAC	AGAGATTCCCT	GTGATGAAGC	GTCGAATAAC
89651	ACAGTGTCTT	GCTCCAGTTG	TTGGAGGAGA	TGGTTCATGA	TAAATCTAGA
89701	GTGAGATTAA	GACACAGATG	AGGTCAAATG	TCATCCAGCT	AGTTTATGAC
89751	AAATTCTAAG	CAGTTAAGGA	ATGTGGGAAA	CATGGCAAAG	TTAGCAACAG
89801	TAAAGGGAGG	AATTCTAGCA	AACTGGCTAT	AGAGCAGGGA	TACTCACCCC
89851	CATGGATCTA	GCAGTATCCC	ATTGGTTTGC	AGGAGGTTGC	AGGTCAGTCA
89901	AAGACATATC	ACTGATCTGC	ACAGCTGCAG	TTCAGTGGAG	GATTGTCTCT
89951	GTTCTACCAC	TGAACTCTTC	AGGCTTTATC	CTCTTCATTC	TGCTCTCATG
90001	CACCTTCAGT	TACTCAGGGC	CAATGGCATG	TGTGCCTCCC	ATTGGGTGAT
90051	CGGCTGTTGA	TCATGCAGCA	ATCACACACC	TGCCACCTGG	CACGCTGTTC

CR1-GG

90101	GGCATGTGTA	CTGACTTAAT	GGAAGAGACC	TTTTAAGCTC	ATCTAGTCCA
90151	ACTCCCCTCC	ACTGAAGAGG	GACACCTACA	GCTAGATCAG	GTTATTTCAGA
90201	GCCCCGTCCA	GCCTCCTCAA	TGTCTCCAGG	GAAGGGGCTT	CTACCATATC
90251	TCTAAGCAGC	ACATTCCAGT	GCCCCACCAT	CCTCACTGTA	AAAGAATTTT
90301	TCTTTATATC	CAAGCCAAAT	CTCCCTTCCT	TTAGTTTGAA	ACTATTTCCC
90351	CTTGTCCCAT	TACAACAGAT	CCTACTAAAG	AATCTGTCTC	CTTCTTCTTA
90401	AGAGCTCCCT	TGAGAAGGGA	GCTCTTCTCA	GGTCACCTTG	GAGCCTTCTC
90451	ATATCCAGAC	TGAGCAGTGC	TAGTTCTCAG	CCCGTCCTTG	TAGGGGAAGC
90501	ATTCCATCCC	TTGGATTATT	TTCTCTGGA	CTCACTTCAA	CGTCCATGTC
90551	TCCTCTGTAC	TGAGGACTGC	ACATTGGGAT	GTAGTACTCT	AGGAGAGGCC
90601	TCACCAGCAT	AGAGCAAGGG	ACAGGATCAC	CTGCCTTGCC	CTGCTGGCCA
90651	TGCTTCTTTT	GCTGCAACCT	AAGATACGGT	TGACTTTCTA	GGCTGCAAGG
90701	GCACACTACT	GACTCACGTC	CAGATGCCAT	CTACCACAGT	ACCCCTAAAT
90751	CCTTTTCTGG	CAGGGCTATG	CTCCCTCTTT	TCGTATTCCA	GCTTGTAAT

V gene exon 6

90801	GTAGTGGGGG	TTGCCATAAC	CCAGGTGCAA	GACCTTACCT	TTGGATTTGT
90851	TGACCCTCAT	GAAGTTCTCT	CGGGCCCCACT	GCTTGAGCCT	GTATGGATCC
90901	CTCTGAATGG	CATCTCATCC	TTCAGGAGCA	TCCACTACAC	CATACAGCTT
90951	GGTGTCTTTT	GCAAACCTTG	TGAGGGTGCA	TCAAAATCCT	GTTGACAATG
91001	TTACTGATGA	AGACACTAAA	GAGTACTGAT	CCCAGTACTG	ATCCCTAAGG
91051	AACACTACTG	GTCATGATC	TCCATCCAGA	CATTGAGCCA	TTGACCACCA
91101	CTCTCTGGGT	TTGATCCCGC	AGCCAGTTTC	TAGTCCACTA	GTCAGCACAC
91151	CACATGATCAT	AGCCACACTC	GAAGGGGCAG	TCATGCAAGC	ACCACCCTGG
91201	GTATTTATTT	CCCAGCACTC	TAAAGCAGAG	CTCTTGCTCC	AGCTCATGTT
91251	ATTTTCTGTG	TGGCAAGGAG	TGAGATTTCAT	CGACTCTAGC	AAATGGAACT
91301	AATGGCTCCA	TGTGCCCCAG	GTCTCAGCTC	AGCACCAGCC	AGGCCAGGGC

V gene exon 7

91351	TGAGTCCCCC	CACATCCAAC	CCATAAGGTC	CCAGAGGACT	CCTACGTTTA
91401	CCAGTGGTGC	ACAGAGATGA	GTTTAGCCCA	AGTCCACCCC	TCAGCCTCAA
91451	CTCCCTTCAA	CACCTCTTCA	CCAAGAGGCC	CAATCCATCA	CTCCTTACCA
91501	GCCAAAACAT	ATACTTGTTT	AATACCACAG	CCACAAAAGC	CACGTGGTAA
91551	GGTCTGAAGA	GACCAAAACT	GTGGTTTGAG	TAAAACAGAA	GGAAAGCCTC
91601	TACTCAGTAC	CCCACCTTATG	ACTGAGTTAC	TAGGATAGGA	CCTGATTCTA
91651	CAGCACCCCA	ATACCCTGTA	GATGTATTCC	TTTAATTCTT	CACACCAGAT
91701	TAAGGCTGCT	GCCACCACCC	ACCACAAATA	AATCCTTGCT	TAGGCTGATT

91751 ATAACCTTACA CCTGTGGCTT CCACAGTCAA ATGAGATTCC CAGTGCCCCAC
 91801 CTGCGTGTTC AACTTCCTTA AGGCAAAGCA TCTTGCAGTT AGCAGAGTGT
 91851 TAAGAAATCT TCTTGTATTT CCTTTAACAC ACGTTTATCT TCCCCAGTGA
 91901 TGCTGAATTT GCAAATGCTT TAGGGAAAAA TTGGCAGCAA GTCCTTACAT
 91951 AATTACTGTT TAGCCTAGAA AATAACAACC GAGGTAGAAT ACTTCAGAAA
 92001 GTTTCTAATT TAAGGTTTTT TTCTTGATGA GAGAAAAGTG CTATCAGAGC
 92051 TGTTTAGTAA TTCCAGTCAT GCATGGGTAA CTCATTCTTC TGTGTTAGGG
 92101 TTTACTGAGA GGTGAAGAAA CAAGTAGTTT CTTTTCTTA TGAAAAAAA
 92151 AAAAAGTGGT ATTAGAAGAA CCCCATAAAA GAATGCCAAA CATTGCAGCT
 92201 TATGATGTGC AATGTGTCAC TCAGTCTTAC AGATGACACA GCCTGGAAGT
 92251 AAGCTTAAAA AAAATGTTTA ATTCTAACT TCTTTTGACA CCATCTGTGC
 92301 TGTGGTTTAT GACATCCATT AATAATGTTT ATCACTAAAC AACACAGAT
 92351 AGAGAGACCA GAAACTAAGG ATGCTGCTGT CATTTCTTC TGATGCAAGG
 92401 TAGAAACATC AGGAAATTAA GGCACACTGA AATATTTTGT AATATTTTGG
 92451 ACTAGAAGCA AAACCAGAAA CTGAGTTGCA TTTGTCTCCT GGAGTACATT
 92501 CTACAGGTAT TTA AAAAGAG ACAAAAACCA TAAATCTACT TGAATTTAAT
 92551 TTGAAGTATC AAATGAAAAA GATGTACCTG ATTTTATTAT CCTCCACACT
 92601 GGTCTTCTGA ACTTGACCAA TCCCACTGGT CAGTTACTGG TTTACGACTG
 92651 CTCAAGCTGT TTGTAGCAAC TATGTTGTAC CACAAAATAT CTGAGCCATT
 92701 ACAAACAGA AGAGTCATTA GGCATTTTAT CTCCAACCCA AAGCATACAT
 92751 GCATGTTTTA AAATCTCAAA TTCTCCTGAC TTTAATTGTG CATATTATGT
 92801 TCACCAAACC TTTTAGAACC TGCCTTGTTT TTTTGTCTCT GGTCTGTAGC
 92851 TGGGAGTCAG AGAAATTCAA CTGTGATTGG AAAAATGGTT ACTGGCAAGC
 92901 TATAGAGTTT CTAAGCCAGA AGGTGAAGAA ATACTACTTT TTTAACACTC
 92951 TTGGCCTGGG ACTAGACTTA CAGACATGAT CAATATTGAA AGGCAATTTG
 93001 GAGGTATACA TTTTAACATG TCCTCAGTCT GGAGTTAGCT GTGTGTCCAG
 93051 TTTCTCTCA GTGTGAGTCA AGCAATAGCA TTAGAAAGTT ATGCCCCAAG
 93101 TCTCATCCCC TCCTATTGAA ACTTGGCACA GCACATTGAG GCTGAAGCC

V gene exon 8

93151 ACCAGGTCAC AGCCCCCTTA AAGGATTCGG CAACAGCTGT GGTGCTATC
 93201 ACATGGTGTT GATCATCGTT GGGCCCCTCA CTGTAAGAAA GACATTGAGA
 93251 CCCTGGAGCG TGTCCAGAGG AGGGCAACAA AGCTGTTGAG GGGTCTGGAG
 93301 CACAGGCCTT ATGAGGAACG GCTGAAGGAA CTGGGATTGT TCAGTCTAAA
 93351 GAAGAGGAGG CTCAGGGGAG ACCTTATTGC TCTCTATAAC TACCTGAAGG
 93401 GAGGTTGTAG TGAGCTGGGG GTCGGCCTCT TCTCTCGTGT GACTAGTGAT

CR1 - L

93451 AGGACTAGAG GGAATGGCTT CAAGCTGCGT CAGGGAAGGT TCAGGCTGGA
 93501 TGTTAGGAAA TACTACTTCT CTGAAAGGGT GGTCAGGCAC TGGAAAGGGC
 93551 TGCCCAGAGA GGTGGTGGAG TCACTGACCC TGAAGGTGTT CAAAGAGTGT
 93601 TTGGATGTTG TGTGAGGGA CATGGTTTAG TGAGAACCAT TGGTGAAGGG
 93651 CGAACGAATG GTTGGACTGG ATGATCTTCT GGGTCTTTTC CTACCTTAGT
 93701 GATTCCATGA TTCTATGATC ATTACACTGG ATTTGATACT CTGTGAGCAA
 93751 AGGCATTGAA GTGGTACAAA AAATTCAACA TTCTGCATTA AATTGTAGAA
 93801 TCTGGCAAGT GGAAATCGTT TTCTATAGGC ACAGCCACGC ACTCAGAATG
 93851 TGTTTGCAAT TTGCTTGCAT TTAGTCTTCT GCAAGTAATG ACTGCTTTCT
 93901 GTATGCAAAT GATTGATCCA TGTGAAAAAA TCTGCTTGTG TATCTGTGAA
 93951 TCAAATGCAT TGCTTTATAA TGTGCATTTT GGATCATTTA TTTGTGGAAG
 94001 TAAGTGTA AAACAGAGCC TGCAATTGTG CTCTGTCAGT ATACAAGGCG
 94051 TTA CTCAACT CCAGCTGTAC AGTCAGTCAG GCCCTGAGAT AATCTAGACT
 94101 TATACTTTCC ATAGTTATTA TAATTTTGTC TCTTACTAAA TCTTTGATTC
 94151 TGCTTGTTTG ATAAAGTAAC ACTCATTTTC TATATAGTAT TACAATCGCT
 94201 TCTAGAAGGC ATTACATCAG TGAATTCATA GGCTTTCTGA AAAACAGATT
 94251 CAGAAATCAG ATTTTCTAAC TGTATTTTTC CATGTATATG TATTGGAGAA
 94301 CTAGTGAAGA ACGTGTTTAA TATACAGAAC TACAGATAAA TCCAGAAAGG

94351	AGAAGCAACA	CTCAAAATAA	GGATGTGGCA	ATCCTAAATA	GGCTGTAAGC
94401	TGGCTTGAAG	CATGTCCCCTC	CAAAAAAGCC	ATCTGAGAGA	AAATTTCTCA
94451	TTTACCATGC	ATGTGCAAGT	TTCCAAACTC	TGCAGGTATT	TTATTTTCTC
94501	CTTTTGCAAA	TTCCCTTGCA	GATGGCATTT	TGCTTTGCTT	GCTCTGAAGT
94551	GCGTTGATGT	GAGCAGTGAG	GTGCTTTTCT	CATGCTGAAA	TACAAGAATA
94601	AAGAAGATTG	AAGCACAGGT	CTGTGCAGAA	CATCTAGTGA	ATGTATTCAG
94651	GGCATGCCAA	GCACAAGCTA	TTCAAATATT	GCTCCCTGAA	AATGCAGTCA
94701	GAGTGGACTT	CATGTTTTTA	AGTGGAAGTG	GTACATAACT	TCTGTAGTGG
94751	AGAAATCGTG	TGACTCAGGG	GGTGAAGGGC	CTATCCTCAG	TTAATCCCAT
94801	ATTCTTGTTG	CAATATGGGC	CTGCATCTTC	CAGCACTGTC	AGACTCCAGG
94851	TTTTAGCATA	AGATCAGTGG	AAAAAAATAT	ACACAAATAT	ACCCCTTGCT
94901	TCTGAAGCTC	TGCCCTAATT	GGGATGATTG	CAAATAAATG	AAAAAAAAAA
94951	AAAGGGAAAT	TCAAATACTG	ATGATAACTC	TGCAGTTCAA	CAACCAGGAC
95001	ACCTAGTAGG	TGAGTTCCTG	CTTCCAGTCC	CTGCTGCTAG	GACTATTCTT
95051	GTTTTAATGT	TTAAGAGAAA	ACAAGTATTC	ACACATGGGT	GAGTACCCTA
95101	GCAATAATGA	CAGAGAACTA	TTCTGCTCTA	TAGCATTCTG	ATAGTATGAA
95151	TCTCGCCTTA	ATTCCATAGT	CTTCTCTTAG	TACCACGTCC	CCCAGCTCCT
95201	GTTGTCTGAA	TTAAGCAATC	ACTGTGTGAC	ACCTACGTCT	GAGCTTAGCT
95251	CCATTACACT	CAATGAAATC	AGTTGCTGGT	CTTCTGTGGA	AAATATACTA
95301	TTGCGCCCTG	AGCAGTGCTG	AGCACAGCAC	CTGTTTGCCT	AATATTAATG
95351	CAGCACTCAG	ACCACAACCA	GCCTCAAGAC	ACTCAGCAGA	AGGAATATTA
95401	TGAAAACAGT	AGGTGCTGCT	CCTGAAGCAT	AACAGCCTCC	AGAGATGGAA
95451	GACAAGAAGA	TGTGCTTTGG	TAGTGTGTGG	TGCTCATTTT	CTTGTTTCATG
95501	AATGATGATG	GGAATGACTC	TGGAAGACAC	ACCAGAGGCC	TCTGGTGTAT
95551	ACCCCATGCC	TCCAGCCTGG	GCAACTCCTC	CTTGCTGCCT	TTTTGACTTG
95601	TTTTGTGCAA	GCCATCCATC	CAGAGGTGCA	GAGTGAAAAC	AACCATGGAG
95651	CTCAAGAAGA	GCCTCATCAG	GTCCATACAC	ACTTCAAACC	CAGAGCAAAA
95701	CATTGGAGCC	TCGGGCTCAC	TGCACAGTTC	TGCTGAAAAC	TGTGATGAAG
95751	AGTTAGGGGT	TAGAGGAAAA	ATGTGCTGTA	GTTATCAGTG	CAGCTCCATC
95801	ATCTGTTCCG	GGAGCATCAA	GGCTTCCTGG	AGAGAACATT	ATCAGAAGGA
95851	CACAAATTAT	TCAGTGAGAG	GGAGAAAGTG	GCCTCTGAAC	GCTCTGAGTC
95901	AGATGCTTAT	TTTGTGAATT	TTTCTGTTTC	CCTCTTCCTG	TTATGCTTCC
95951	TGCAGATACT	TGGCACATCC	TTGAGGCGAT	TCAGCAATAT	ATGCTCATAT
96001	TCAGCCACAT	CTACAGAGTG	CCTCCTCCCT	GAGAGGAGAA	AAATATTTGT
96051	TTTAGGGGGT	AAAACCAGAA	TAGCTGTGCT	TGGACCTCCT	GCTCTGCTGT
96101	GGGACAAGAG	AAGCTAGGCT	CCTGGTAACC	TCAGGAGGCA	GAGGGAGGCA
96151	CATTATAATT	TGGCTAAGAC	TTGAAAATGC	AATTTGTTGG	TATATTTGGT
96201	AAATATACTG	ATGGCCTAGT	CCCATAAACT	ACCTTCTAGA	TGTGGAGTAA
96251	GTGGTTTAAA	GGCATAGCTA	AGAGGTTGCA	GAAAAGAAAG	GACCACATCC
96301	AATTTGGTAG	CAACCAACAT	CCAGCATTCA	CAGACTCATG	AGAAATACCT
96351	TTTAATTAAT	TTATTTATAT	TAAATAAAAA	AAAAAATCC	TTTGATGACT
MAR (0.81)					
96401	CACCCTGCTT	TTCTGTGTAC	TCTCAGTTGG	GAAGAAAGTA	ACCGCTGGGT
96451	ACATACTACT	GCAATTTTCA	AGCTGCAGAC	TTGAAGAGCT	TTCCCAAGTG
96501	CTGAGATATG	CAGGAAAAAA	AACCCGTGTA	ATTACAGTAC	CAGGCATTTA
96551	ATTTTGATTG	CTAAATAAAG	AAGACTCGTG	ACAGTCCATG	ACTACGTCTT
96601	GGAGGGCTGC	AATTACATAT	GAAATATAGT	CTGAATTAGG	AGAGTTACTG
96651	GCAGAGGCAA	AGTTTGCATG	CCAATTAATT	GGTAAAAGGA	GAGTACGCCA
96701	AACACAGGCT	GTGGACTGCT	CTGATGAACT	GAGTATGTAA	AAAAATAGCCA
96751	TGTGTGTTTT	TCAGTGAATA	CCATGGTATA	TGTCTGGTTT	GAGTCAAATA
96801	TGTATTAAAA	TGAAAAAATA	AAACAACAAG	AACAGTGAAA	TAAACAGTGC
96851	TAGCATATAT	TAGCTTGTAT	AATCAGACCT	ATATAGTTTT	CAATAAATC
96901	TTCAAGGAGA	ACAAAATGTA	TAGTATGTAT	GATAAGGATA	AGTACTATAA
96951	AACATCATCA	TGAGGAGTGC	CAGTCTGACA	ACAGGAAAAG	GAATTCAGCG

97001	TGTGAATGAA	GGGGAAAGTG	TGACTGAAAC	AATTGTCACT	CAGCTTACTA
97051	CAGCAGAAGC	AATCATTTAT	GATCTTAGAT	TTTTTTTTTAT	TTTTTTTTTTT
97101	AACCTGCTTC	AGAGATATCT	AAGTAATCTC	AAAAACAGGA	ACAAAATACC
97151	AACGCAAGGA	AAAATTCTAT	TTTCGCTTCA	TATAATCTTT	TCTTTTTTTTT
97201	TCTAGTTGCA	TTCTTACCTA	AAAACAACAA	CAACAAAACA	TTTAAACAAT
97251	GTTTAAATGT	TTACTGCTGG	TTTGATTACA	TCAAACCGAG	TTGTTGCTGG
97301	AGATGACCAG	CTATCAAGGT	GCATAATGGA	CTGGCAGATG	TGCTTGGTCT
97351	TACCCCAGGT	TGCTGTGCAA	ACACAATACA	CATTGACATA	TAAGCTACTA
97401	TGAGTTCTGA	AGGGCAGTTT	AGACATTAAT	TCTACTCCAG	GCCAGACACG
97451	CTGACTATCT	GAGTGGTTTA	TAGCAAGGGA	CTGGTTGACT	TCAAAGTGGT
97501	TCCAAGTCAA	CCACTGCCAA	GTGCTTAAGA	CTGTGTATGC	ACAACAGAGC
97551	TGATCATCTC	CAGTGCAACA	AATAACATGA	GAGCAAAAAG	CATCTGAAAT
97601	TCTGTAAATG	AGGCTGTTCT	GGCCACACCT	TGGCTCATTA	AAAGACTTTG
97651	AGAGATGCCA	GAATAGCCTC	TGCTAAATGT	GATGCAGATG	GACAAGCTAT
97701	GGAATGAATG	GGTCCAGGGC	ATAAGGAAAC	ATTACCCTCA	AGCACTACAC
97751	AGGAGTCTCT	GAACAACCA	AGGAAAGGAA	ATGTGAAAAT	GTGAACAGAT
97801	AAATGTTGGA	AAGAGCCGCA	TTTCTGCTGC	TTACTATGTC	CTTGATTATG
97851	CCAACATTAA	GGAAGAATGG	CAAACCCCGT	GAATTGGTTT	AGGAACAGCT

Y:OV-1 element

97901	CTACAATGGA	CTGCCTGACG	GAGGAAAAGG	GCAGCAGAGT	CCTTGCTGAC
97951	CTCTTTCTGG	TACAAACACA	GATCTGGAAC	AGAGTTTAAAC	CAATTAGTCT
98001	TGCTTGCAAT	CATGCCTCTT	GAATTTC AAG	AGGTGCCTTT	GATTTCCCTT
98051	GGCCTAACAC	CCCATCTAAA	ATTACAAAAC	CATATTTTGT	CTGCTGAGGA
98101	CTGTGCACGG	ATAGCCCGTT	CTGGTCAACA	TACTCAGGCT	GCTTCTGCAA
98151	CAAGTTTTGC	ACTGGCATT	AGTGTAGAAA	AAATGCAAGA	CCTGTGTAGC
98201	GGCAGACTTC	TCTCTGGAGA	ACATGTATTG	CCTCAACTAT	CTTACCTGTG
98251	CAAACTGTT	GTGGTGACTG	TGCTATTGCA	GAGGTAGAGT	GTTCAAAGAA
98301	GGCAAACGTA	CTGAATGAGA	GAACACATCA	AAAACACCTT	CATGCCCTCT
98351	TCTAGGGGAG	ACAGCGAAAC	AAAATGTTTA	TTGAGAAAAT	CTTGAGACATC
98401	AGTCCAAGAG	ATGAAAACAC	TGTCCATATG	TGCAGGGCTG	GTTGTGTTCT
98451	ACAGGTCCAT	GCTGCATAGA	TGACCACAGA	GGACAAAGAC	ATTGAAACCA
98501	AGCATACAAA	GGGCTGTGGG	TACCCAGGAA	AGTTCTTCAA	GGAAGCCTTG
98551	AAGGGATGTT	TGAGTACCCA	CCTGACCTGT	AGCTGCAACC	CTGATGTAAA
98601	CATGTGAAAA	TGGGAGCATA	AGAGAAGACA	CTACACACTG	CAACAAAACC
98651	TGTGCCCTTG	GGGAGGAAAA	GTTTGACAAG	ATAAAGTAGA	AGCTATTGAA
98701	AAAGGAACAT	TAAACAAGAC	AGGAGGAAAG	CTTCTTACTA	TCTGTAGATT
98751	TCCCTACTCC	CGACATGACT	ACTGTCATGT	TGACAGATAA	AAAAACTCA
98801	TTTTGAGTGT	GGAACTGAA	AGCCATTCCA	GTTATCATGG	TCTGCACATA
98851	CACACATGAC	TGAATTTT CAG	CAACACAAAA	CACAGTGCTT	ATGATAAAGG
98901	AGCTCCCTTT	TACCTTTTACC	AGTGGGTACC	ACCACCACTG	TGTACTGTCT
98951	GTCTTAATGT	GCAAAAATTT	GGGATTTCTA	TTATTCATTC	CCCTGGCCTT
99001	AACAGAAGCT	GGATTTTTTTT	CTTTAGTGCT	CATCAAGGGC	ATTATTCAAT

SDRE fragment

99051	AAAGAGTAAT	AGCTTTTTTAC	AATTGACTAA	TATTTGATAT	TGTGCATTAT
99101	GATTGTCTAA	CAGACCATGA	ATGTTCCCTC	AGACAGATTT	GGTAGTTTAT
99151	TTACCTGTCA	TAGTAAAATA	GGAGGTACAG	AAGATCTATG	AGAATAGCCT
99201	GTGCATGTAC	AATGGGCCTT	GTTGCCATGA	CCTATGAAGA	ATGAAAATCA
99251	AAAGCTGACC	ACCAATCATC	CCTTGAATTC	CACTGGCTGT	TCAGCATTCA
99301	CTTCTGAATA	TCTGAATACT	CTGGAGTCTG	CCTTCGCAAA	GCAGCAAATA
99351	CTTTCAGACT	GTTCCCTAAA	TCTCTTCCTC	TTACCTATTC	AACTGAGTTT
99401	CTCTAATTCA	TCCCAACACC	TCTGCTCTGA	ATTTTTTCAT	AAGAAGCTTC
99451	AGCAAAATGT	GCTTTCTCCT	CTCAAATGTA	TGCTGCAGAG	CCTTTGGCTT
99501	ACAGTGGATA	TAGCCCAAAT	TCCAGTGAAA	AACTTCAGTC	TTGCCTAGGT
99551	GCAGAAATAG	ATGGAGCTGT	GCTTTTAAACA	AGTACTAACT	ATAAGCTTCT

99601	TCAGTTCTCA	AACTCTTTCA	GCAGACCAAA	ACATTTTTTCA	GTACAGTTTTT
99651	GTTCTTTTAA	AACTCATATA	AGCTTTGTTT	CTATTCTTAC	ATGGAAAGCA
99701	ATCCATTACA	AAATCCTCAA	AATAGAATGA	CCATCCTGCA	GCTGACTCTG
99751	CTTGGAAGTG	CATTATTTTC	TCTACATCAA	GTGGTTGCCA	TCCATGAGAA
99801	GCATCCCTAT	GTTTCTCTGC	ACACTGCAGT	AAGAGATCAC	GTATATATCA
99851	CACTTTTCCC	TTCACCCATC	TTGGGAGCAG	TGCTACAGTA	AATTGTATAA
99901	TTACAGTGCC	CCAGAGATGA	GAAGAAACTG	AACAGCAGGA	AAGGAGACAC
99951	AGTCTTAAAA	AGAAGAATGT	TTTCCAGGAA	TTGATGCACT	TTCTTGCACT
100001	CCTTGGAAT	ATGGGACTAC	TCTTGCCTCA	CCTTTAGCAG	TGGGTGCTCA
100051	TTAAATGGTG	AATGGTGGTG	GGTCTTCTGG	TTCTCCAATC	ATGTCTTATT
100101	TTCTCATAAT	ATTTTGGGAT	CCTTAGATTG	ATCTGACTGT	GAGAATCACT
100151	TGATCTGATT	TTTTTTTTTTA	ATCTGATTTT	GCAGCTAAGT	TTATCTGAAG
100201	TGTATTATGC	TTATCCTCTT	TTTTAAGGGT	TTTTTTTTTTT	TTTAAAGTGT
100251	GTGTATTATC	TATTCGTTTG	GCTCTAGTTA	TCGATATGGC	TCAATCAAAT
100301	TAATGTTTAA	ATTCTGAAGT	AGAGCATGAG	ACATGCTAGA	CTTGAAGTTG
100351	GTACAGCTTT	ATAAGATACA	AGAAAAGCCT	GAATAATTAC	ATTCTACTAT
100401	TAGGTTTCAC	TTCACAAAAT	AAATTTGGCT	TTCTCCAAGT	AGAGTACCAG
100451	TCTAATGTTG	GCCTACTCAG	TGCTTTCAAG	CACAATGAAT	CAAAAGGCCA
100501	TGACAAAGGG	TAGTAACTCA	AAGGATGACT	CTTAGAAGGC	TAACAGGGGG
100551	AGTGTCCGAA	AGGGTACTGT	ATATATCACC	AAGGACTCAG	AGAATCTGTT
X gene exon L					
100601	CAGGTTCAAC	TGGCAAGCTG	GATTATTACG	AGCCTCTTTG	ATGTTTTTCT
100651	GTAAGTACTT	CTCCAAATAA	AATGTAACCT	CTAAGTTGTA	TTCTTGAATA
100701	TGGAAAAAAC	AAAACAAAAC	AGAAATATAT	TATGTAAGAA	CTTAGAGGAA
100751	AAAAGGGCCG	CCTTCTATTT	TATGATGTTG	GCCCACCACA	TCAGAGGCAG
100801	ATGGTGGTGG	TATGGCAGTA	GAGGTGAAAC	CTTCCCACCA	ACACCCCGTT
100851	ATGTGTGTGT	GCTGTGTGAC	AGATGGCAGC	AGAGGGGCAG	TCTGACAGAA
100901	TGGCGTCTCA	CATGGAAGTG	TGTATGAAGC	AAAGGTGTGT	CACTGAATTC
100951	CTCCATATGG	AAAAAAATGG	CACCCACTGA	CATTATCGTA	TGCTTGCTGA
101001	ATGTTTATGG	AGACAAAACA	GTGGATGTGA	GCACAGCGAG	GCAGTGAGTG
101051	GTGTGTTTCA	GCAGTGCGCA	CAGTGACAGT	TGTTACCTC	CACTGGTACA
101101	GAATTTTGCC	AGCAGGAAAT	GCAGATTCTT	GTACATTGTG	GGCAAAAATG
101151	CATAGCTAGC	TGTGGTGGCT	ATGTTGAAAA	ATAATGTTCC	GTGGCTGAGA
101201	ATCTGCTCAA	GGAAATAAAG	TTATTGTAAT	CATTATAATA	ATATTATACA
101251	TGTGCTTTCT	ATCTATTGTA	GTTTACATGA	AAATAAATAG	GAGGCATTAC
101301	TTTTGGTGTG	ATCTGTATAC	AGGACAGATA	TGTAATAAAT	ATTTCTGGAA
101351	GAGAAAATTT	TTGTTTTTCA	AGTCTCACTC	CCTGCAGAAC	ACAGGTGAGG
101401	TACAGTAGGA	TAATTCACAG	AGCCTTGTTA	GCACCAGGAA	CCTCTCAGGT
101451	TATGTAGTAG	ATCACATTTG	CTACAAACTA	TGGATATGCT	ATTATTCCAA
101501	CTTAAAACTG	TTTTAGAACG	GGGAGGGCAC	TATTCAGCTT	TCTTGTTCTC
101551	GGATTAAAGA	AAGAGAAGGA	CTGTAGATTT	CAATAATTTT	CCCTAAGTCT
101601	TGACATTAAA	TTGCATGTAC	AAGACCTTCA	CCTGGCTGAT	CTGATGCAGC
101651	TTTACAGTGC	ATTAAGTAAT	TTAGCCAGAC	TGTGTATTTA	CGGTATATAG
101701	ACGTTTGTGT	GTTTTTGTCA	ACAACAAAAA	AAAGGAATCA	GCAGAGATTA
101751	AATGTCAAAA	AATGAGAATA	TAGAGAAGAA	GCCCATAAAA	GCTATAGTTT
101801	GGCATCTAAG	CAACTGGCTA	GATTTACAAA	GAGATTCACT	CTATAAATTA
101851	CAGGACAGCA	ACCTCCAATT	TTATGGCCAG	TTGTACAAAG	AAGCAGTTTG
101901	AAACAAGCTA	AGACTATTGT	GGTTTGACTA	CATTTGATTG	AAATATCCAG
101951	AGTATGGTCC	AGAGTAGACA	CAGAAGAAAT	GAAATGTGTT	TACATTGTCT
102001	CAAAAATCAT	TCAGAGTTCT	CTGGATGGCT	ATAGGGAAAC	TCATCTAGTC
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102101	AGGGCAAGTA	CAAGATAGTG	TTTTTATAAT	GAACCAAGTAC	CTTTCTGAAG
102151	GAAAGTAAAC	ATGCATTTGG	GAAACAATGG	GTCAGTCTTT	ACAAATATTC
102201	TAATGATCAC	AGAATTTTTA	GGCTTTACAT	TATTGTTTCA	GCATCACAGA

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X gene exon 1

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 102451 GTATTCCCCC TTGAGCATCA TTGTAGCCTT GGCCATGGTC TATATGGGAG
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X gene exon 2

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 103251 ACTTAAACT GTTCTGACTG TGCTTCCAAT AGGTCCAGCC CCTTCCCAA
 103301 CCCTAGCTAA TGCTCTCAAC ACATGATATG CAAATGAAAA ACTAAAATTT
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X gene exon 3

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 104251 ATCCACCTAC TCTTTAAAGA ACTCCTCTCT GATATTACTG CATCAAAGC
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 104351 CTATCCTACC GGTGAGTTGT ACAACAGAGT GATTTTTTGC TAGATCCTGT
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 104601 ATGCTAATGG ACCTGAAGCT GTTTTTGGAT TGGTATTTCT TCAAGAAAT
 104651 ATTTAGCAT TTCTACTACG TAATCTTATC TGGTAAAGTA ATAAAAATCT
 104701 TAAAGATCTT AACATATCAT GCATCGAAAT AATTTTGCTG GCCCAGTTTT
 104751 AACCATTTTC TCCAGGAAAT AAGCCATGAA AACAGTCTAA TAGCATAATT

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104851	TTTTAAAAAC	TGACTTGGTA	GCTACAAC TG	TTGTCTTTAC	AGATTTACCT
X gene exon 4					
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104951	AAACAGCATC	AGACCAAGCC	AGGCAGCTTA	TTAACTCCTG	GGTGGAAAAG
105001	CAGACAGAAG	GTAAGCTCAG	AGGAGAGTTT	ATAATATACT	TCCTTGTTAC
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105101	TGGATATTTT	CTGTGGAAAC	TGATGACTCT	TGCACACTTT	TTTGTGTGCG
105151	GTGACAGTGA	ATTTAAATAT	ATATGACAAA	GGCAGGGATG	CCACTGTGTG
105201	CTTTCTGTGT	AAGGAGAGCA	TAAGTCATGC	AAGATTGGTC	CCAGCTTCCC
105251	TACAATATTG	GCATCATTTT	ACAAGCATAT	GCTGGATGGA	TAAGAAATGG
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105351	ATGATTAAGA	GTGTATGTAC	ATTTATCAGG	AAAAAGGTGG	GAAGAAAACA
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105451	CTGTTTGCT	TTTCACTTCC	TTCTGTTCCA	TGCAAGTCTT	TTTCCAAGGA
105501	CGTTTTCAGT	ATTCTTGGGG	ATGTGTGTGA	ACATTCAAGC	CTACATGCCT
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105651	AGCTTGCTGG	TTGACATCTA	AAACAAAACA	CTCCTGCAAT	GAAAACAAAA
105701	CCCCACAAAG	CAGCACCTC	CAATCCCTTT	GCCTCATACA	TGCAAACCAG
105751	ACAGACTGTG	TCTTAGCACT	CACTGCTTTG	CTTCTTCTT	ACAGGACAGA
X gene exon 5					
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X gene exon 6					
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106351	GAGCATGTTG	GTGCTGTTGC	CTGATGAGGT	TTCTGACCTG	GAGCGGGTAC
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X gene exon 7					
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114501	CCATTTCTTT	TCTTCCTTCC	TTCTTCCTTT	CCTTTCTTTC	TTTCTCTCTT
114551	TCTTCTTCTC	TTTCTCTCTC	TCTTCTGTGC	TTTCTTCTTT	TCCCTCTTTT
114601	TTTTTTTTTAA	TTTTAATTTT	TATTTTTTTT	TTGTAAATAA	AGGACTTCAA
114651	CCAAGTAAAA	GTGTGTTTCT	GACACTGAGT	TCCATCCATC	ATTCAGTTTG
114701	GCAAACACAG	AATAGGCAGC	ATGGGGTGTG	TCATGACATT	ATACAGGATA

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114751	TATTTCAAGG	AGTTCTGCAA	GGCTGTACCA	CGTACAGCTG	AGAAGCTGTA
114801	CTCTTATCAT	CACAGGTGAA	GCTGATAAGG	TAAGCATTTT	TTTTGGTTAT
114851	GATTCATGTT	CTAACCCATT	TTTTAAAATG	ATCATAAGAC	TTACAAGAAT
114901	ACTGATGGAA	CTTTGTGGTT	TGTCATCAAG	AACAGTCAAG	AAACAAATGA
114951	TTAAAGGATG	ACTTCTTTAA	AAATCTATTG	TTACCTTCAC	ATTTCTGTTC
115001	TGCATTACTG	TACTGTTTCA	CAGCCTGCCA	CATATGAAGT	CAAAGTGTTA
115051	GTACAAAGTA	AAGCTATGTT	TACTAATTCT	GTAACACTGA	GAAGCTGCA
115101	CTGTACTGAG	ACACCCTTTC	TTCTTTTTCA	TTGATGCCCT	TTGTTTCTGA
115151	TTTAGAAATT	AAATGCAGCA	CTGAATTTGT	TTAAATTCAA	GACTTAAGCT


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115201 GAGTTGCATG GTCTACCTAA CATACTTTCT GAATGAAGTT ACTGAATGCA
115251 GCATGGTCAG GTATCAACAA CATACTGCAA ATTAATTTCT GTGTATTCTA
115301 AAACAAGCAA ACGAACAAAC AAAAAACACA CACACACATG CACAAAGCAT
115351 TTGCTTCAAC AGTATGTTTT TTCAACAAGA TCATACATGG AGCTTAAAGC
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115451 CTATCACCTG CACATGTGAT TCAATTAAGA GAGAGATGGA ACACATGAAT
115501 GTGTTGATTC CACACAATGA AACATTTGGC AGAATATCTT GGATTTCCCC
115551 TGTACTTGGG AAATTCTACC CTAGGAAGAT TCTCTCTGCT TGTGACAAAA
115601 TGGGAAGATA TAAGGACCTT AATACTGCAC TTTACAGCAC TGTGTCTAT
115651 TCTATGTTGT CTTCTTTACT AAAGAGTTTT TTTTTTCCTT TACTGTTAGA
115701 TAAAATGATA TGTGTTGAAA CTACAGGGAA AATTTTCATTA GAATGTCAGA
115751 AAAAAAAGAC AGAAAAAATG TTTAAATACT GACGATGTGA AGTATCTGCA
115801 AATGAAACAA GCCTAAACAA TCACTGCCTT ATTTAAAGGT GGATTTTATG
115851 AAAAAGGTGC CAATAAAATT AAAGAACAAT TTTGAAAAGT GAGGTATAAT
115901 TAAGTCAACC AAGAATGGAA CTGTAATAT TTAACAGACA TTTGTCATAA
115951 AGCAGATGAG TTTGGTAAAT CATTATCTCT TTCTATCACT GTGCTTCCAT
116001 TTCCCTAATC TATTTTTAAG AAGGTAATGA TGAGGTTTGA GACCTCTGAT
116051 AAAGTGTTG GTATAAGAAT CCAGCTTCCA TTTACATGAA GGTGGAGTAA
116101 ATCCAGAAAA AAACCTGCGG TGTTTTTCCA GACCTACCCA CTTTATATTG
116151 TCAATAACTG TAGTTTGGAT CACAGAGGGC TGATCTGTTA ACTGGTCTTA
116201 AAAGTGATGT TAAAACTAT AGTGAAAAAC CTGGTCTGGA GTCTCAGGTG
116251 AATGAAGACT GAGAACAAAC CTATGTGTGT TTTCTTTCCT GCACAAGATG
116301 GGAAACGATT GTCATGAGC TTCTTTC AAG GCAAGTCTTT GCAATATTTT
116351 CAACACAGTA CACATGTACA GAGGATAACT CAAGTTTCAA ATAAAACAGT
116401 TGCCAGCCTA CACATAACTG GTACCTATAC AAGATTTTGA TTGCTCACAA
116451 ATCCAAGCAC ACACCTGCCT TTTAAATCCA CACTACTGAA TTCTACTTAC
116501 TGAAAATAAG CTGTGCACTG TGTACAGAGG TTCAAGTGCA CTGACTTCCT
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Y EXON 2

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116601 ATGGATTCCA TCAGTGTAAC AAATGCAAAA TTTTGTTTTG ATGTTTTTCAA
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116701 GCATCCTTAC AGCCCTGGCC ATGGTCTATC TGGGGGCAAG AGGTAACACT
116751 GAATCTCAGA TGAAGAAGGT AAGTTGCTTA CATTGGTGTA AAGTGGACAG
116801 TGGACTCTAC TTCTGCTTGT CATTCTTCT AAGTAATAAC ATATTATCTA
116851 CTCATGAGGC TCTCACATAT TTAAATTCAC CAGATGGATC ATGAATCAGG
116901 GAATTGTATT ATTTTCTTCT AAATTCTGAC ATCTTCCACA TAATGTGATC
116951 ATTTTCTTCT CATATTTTTT ATTTTGTAT TAAAAAGATA AAACCCTGGA
117001 GGAAAGGAAG AGGGAGAACA TTATTCGCAG TGCATAATAC ACAACTAAGT
117051 TAACATCCAG ATGCTCACTG AAAAAAATAT AATCTAAGCA AATAGTGCTA
117101 TTTCCAATTT CTCAGAAGGT GACATGAAGT ATGAACCAGC TGCAAGCTTA
117151 CTTGCAGCCT TTTAGTTCAT CTAATCTAGC ATTTGTTGTG GGTTTTTTTT
117201 TTGTTTCTGT TTTTGAGCCA ACAGCTCTAC CCCGAACATC ACGTGTAAT
117251 TTTAAATGCA TACCATTTTT GGTCACGCTT GTGTTTTTTT CTCACTGGCA

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Y EXON 3

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117301 TTTTCTCTTG CAGGTTCTTC ATTTTGATAG CATTACAGGA GCTGGAAGCA
117351 CCACTGACTC TCAGGTAAAG ATGTAACCTC TCTCCTTTTG TTCCTATTTT
117401 CTCCTCAGGA CAAACTAGA ACTACTCTGC CTCTGCTCCA AGCAGTTTCA
117451 GACTGTCAAA AGTGGTGGCA ATGCTCTCAA ACCAAACAGA TCTGTGGAGG
117501 GAGGAAAAGA GTGTGTAAC TACTCTTGT TAAAGCCAGG GAAACTGACT
117551 TGGAGATAGG TTTATTTGTC TGTTTAAATG ACCATCATCA GACTAGGTCT
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117651 GGGGTCTGAT TTTCTAGATA AGGAGAACT AATGTGACAT ATCATCTTGT

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Y EXON 4

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117701 TTTCTGTCA TCACCTCAGT GTGGCTCTTC TGAATACGTC CACAATTTGT

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117751 TCAAGGAGTT ACTCTCAGAA ATCACCAGGC CAAATGCTAC ATACTCACTC
 117801 GAGATTGCTG ACAAACCTCTA TGTGACAAA ACATTCTCAG TTCTTCCGGT

CR1 GG

117851 GAGTTGAAGT GTGACTTAAC CTCAGTGAGA TTGCCCACTG GGCTCACCTG
 117901 GGACTCGGCT CTAAGTGTGAG CCACAATGGG AATTGGTTTG AGCCACAGGA
 117951 TGAGTTCAAA CCTTTCTGTG GCTTTTAGGA GGAGGCTAGG CTCACACAAG
 118001 GTATAAGGGC TCTGGAGATA TTCAAGACCC ATTTGGACAC TTTCCTGTGC
 118051 AATCTATAAT GAACCCCTGC AGGGGGTTCA AATTGATGAT CTCCAGAGAT
 118101 CCCTTCCAGC CCCTGCGATT TTGTGACTCT GTAATATATG CCCATGCAGC
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 118301 TAAAATAACT CACTTAAAGA AAGTTTGGT TTTGAAATAA AAAACAGGAA
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 118401 GAGTATTGTC TGTCTTAAT AATGTTGCA GAACAGAAGG TTTTATGGTA
 118451 AAATGAAGAA AATATTTCAA AATTTTAACT TAGAATCCAA TCTGAAGACA
 118501 AAAGTGACAA ATCTAAATAT GTGAAGTAGC CTTGTCCAGC TTTAAGATTCT
 118551 AGTTACAGCA AGAGAGCTGT TTGACTTGTT CAAGTGTAGG GATAGAAGTT
 118601 TCTTTTAAAC ATCACTTTCC ATTTTCATTAA TTTTGCATTT CATATTCTTC
 118651 TATTTTAAAG TTCTCAACAG TCAAACACAA TTCTTCTGCT TATAGGAATA

Y EXON 5

118701 CTTAAGTTGT GCAAGGAAGT TCTATACAGG AGGAGTGGAA GAAGTTAACT
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 118801 AAAGAGACAA ATGGTAAGAA GTAAAAAAT AGCTGATATT TTCTCCTACC
 118851 TACTGTAATC TACGCTCTTG TCTTCTTCTC CTCAAATGT GAAGAAAGGC
 118901 ATATCAAGGA ACAGCACTTG ATTATTGCTA TGAAAGCAAA CTCCCATAAA
 118951 ACTCACCATG CCCTTCATTG CAGGCATTCA TGCAACCAG ACAGGCTGTG

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119001 TCTTAACACT CACTGCTTTG CTTCTTTTTC ACAGGACAGA TCAAAGATTT
 119051 GCTTGTATCA AGCTCCATTG ATTTTGGTAC AACAATGGTC TTTATTAACA
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 119151 CGGGAAATGC CCTTCAGCAT GACAAAGGTA GGGACATGGG CACTACTACT
 119201 GGAAAAATTC AAGATAAAGT GATCCCTACT CACATTGTCT CATGCTTCTG

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119251 TTTTGCAGGA AGAAAGCAAA CCTGTGCAAA TGATGTGTAT GAACAATAGC
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 119351 ATATGCCAGC GGAGATCTGA GCATGTTGGT GCTGTTGCCT GATGAGGTTT
 119401 CTGGCCTGGA GCGGGTACGG CCCTGGCAGG GGAAGCCAAC TAGTTCGGAG
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 119551 GCTTCTAGGT GCTCAGGCAG AGGTTGGCCT CTAAGGAGAG CCCTAGCCTC
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 119651 AGGGCTGCTG TAGTCCTGCA GCAGGGGATG TTGGTATATG CAAGTTATCT
 119701 CCATCAAGTA CTAGAGACAG ATATGCTAGC AGGATTTCTT TTTTACTTTT
 119751 GAAGAAATTT CAATTCCCAG AGATCAAGTA GAGTTCAAAC ACTGTTACCA
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119851 GTCACCCCTC CAAATAATTA AATATAATTT TTTTTTTGTA AATATGAGGG
 119901 ATATTTTAAA TGATCATTTT TCATTGAATG TAGAAAAAAA TAGGAAAAAT
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 120101 TCATGATAGC AGATGATATG TAGGCTATAG TCAGGAAGAA GCACAAGGGA
 120151 TAAACAAATA GATTTAAGCT TAAGCGTCAC TTCTGTTTTG CACACAAATA

120201	AATGAAATAA	ATAGCAACAA	GTGGTATTAA	TACAGTTGGT	ATGGCCACCA
120251	TACTCCTGCT	TTATGCATTT	CATTGTCTCT	TCTCTTTGCA	GATTGAGAAG
			Y EXON 8		
120301	ACAATTAACT	TTGACAAACT	CAGAGAGTGG	ACTAGTACCA	ATGCAATGGC
120351	AAAGAAGAGC	ATGAAAGTGT	ACCTGCCCCG	CATGAAGATC	GAGGAAAAAT
120401	ATAACCTCAC	ATCTATATTA	ATGGCCTTGG	GAATGACTGA	CCTGTTTCAGC
120451	CGTTCAGCCA	ATCTGACTGG	CATCTCTTCA	GTAGATAACC	TGATGATATC
120501	TGATGCTGTC	CATGGGGTGT	TCATGGAAGT	CAATGAAGAG	GGCACTGAGG
120551	CGACAGGTTC	AACAGGGGCA	ATTGGAAACA	TCAAGCATTG	CCTTGAGTTA
120601	GAAGAGTTTA	GGGCTGACCA	TCCATTCCCTC	TTCTTCATCA	GATACAACCC
120651	AACCAATGCT	ATTCTATTCT	TTGGTAGATA	TTGGTCGCCC	TAAAGAGAGA
120701	AAGAGCTGGA	AATAATGCTT	ACCTTCCCCT	CAGAAATCAA	ACCTCTTTAC
120751	TGTAGTATTG	TAGCATAATC	TCAATGCAAT	ATTTTATCCA	AGTGGAAGC
120801	CTTCAATATC	TAGGGAGACA	TTCTTGAAGA	AGCATGTGAA	ATTTTCAGATC
120851	TTTATATGCA	GGAATTTATT	CTCAGCTTAG	ATTCAGGATT	CATATCCAAG
120901	GTGTACATAT	TCCCAATGTG	CTTGAATAAC	TTGGGAAACA	GGGCCAGTGC
120951	TTTGGGGTTT	TTTTTGTGTT	TTTGTTTTTT	TTTTTTTTTG	TTTGGTTTGT
121001	TTTTTCTGG	TTGGTTGTTT	TTTTTTTTTT	TGTGTGTGTG	TGAGATTCTG
121051	CCATTGTTAT	TGAGAATCTG	GTTTCTCTAT	AGGAGTTCTC	TGAAATAAAC
121101	ACAGCTTTCA	GGAAAATCCT	GGTCCTTTCC	ATTGAATTAG	CTGGGCAGTC
121151	ATCCTAGAAC	TGATGCCTGG	ACAACTTGCA	GATGAAATTT	TTAACTTCAG
121201	CAGACCATTT	GTCTTCCAGT	AATCCATTTG	GACTTATTCT	TGCTGCGTAA
121251	CATTTTTTCT	GAGGGAGCAT	ACAGAAAGTC	TACCATTTCT	TCTTAAATCA
121301	TCTCCAAACA	AAACATCTTC	CTGATTGATA	TTATTTCCCA	TTTTCATCCC
121351	AGTGACATGT	CACTGATTTT	GTGAATGTTA	ATTAATGGTC	TTTCTATTTA
121401	TTCTAATAAA	AGCTTCGCAA	ACAAAACATG	TCATTACCTA	TTCTGGGTAA
121451	CTGTACTACA	CAACCTGAAA	AATACGATAT	AGCGGGTAAT	AATTATTGAC
121501	AGAGGTGACT	AAGCTGGTAT	GTGGATCCTA	TTTTCAAAAT	CAGAATGTAC
121551	CCATATATGA	GGTCACTAAA	TATTTTAAGA	TTAAAAAATA	AAAAACAAC
121601	TGGGTTTAAT	CAAGGTAAAC	CCTATAGCTC	CTACTCTTCA	ATTGAGCTTC
121651	TCCCAATACA	GCATACCAAA	TAACAAAATT	TTTTGAATTT	ACTGAATTTT
121701	CAGAGAACTT	TTACAGAAAT	CCTCTAAGGG	TCCTCAGTAA	ATACATGAAG
121751	GTGATGTGTA	CAAGATAGAA	TTTTAAAATA	TGAGAAAGGT	ATTAAAAGGT
121801	AGACTGCTTC	AGCTTCTCTA	TGCTGACAAG	AATCACATGA	AGAAATCTTT
121851	CTATTGCCTC	ATGTGATATT	CCTCTCGAGA	TGTTGTATGC	TATTTACCGG
121901	TCTTTAGAGG	AAAGGGTCTT	TAGGTTATAT	ATTATCCAAT	TATAATGGTT
121951	ACTAGTGTTA	ATGACAGTTT	TCTGCTAGGA	TACACATGCA	GAATTGCAAA
122001	TTACAGTATT	GGTACTGAAA	ATGTAGCGAT	ACTTCAGTAA	TTCAGAGCTG
122051	CCTCAAACAC	ATGCCATGTC	AGCATTAAC	ATAACTTGAA	ATGATGACAT
122101	TAGCAGCAGT	GAAACACGTT	TCATACCCAC	TAAAAATGGG	AGAAATGCGA
122151	TTACTGGTCT	TCCCAAGAGG	GTCAGAAGGA	TTAGGTACAG	TTTGCACAAG
122201	GATTTCAAGTA	AAAAAAAGTA	TTTCAAGAGC	TATGAAATTT	CAAGTTTTAC
122251	TGTGTACATC	ATGTTATTTT	CCTCTTACAG	CTGAAATCAG	TCAATACAGT
122301	TTTGCTACAA	CTAAAACCAA	CCAACCAAAC	AAACGGCAAA	GGAAAAAAGG
122351	CAGGACTGGT	AAAATATTGT	CCTGAGCAGC	AGAGTGTGTA	AGGTTACTAA
122401	GCAGTTATAA	TACTGTGTTG	GAAGTGAAT	ATGCAGCTAT	GTCCTCTGTC
122451	ACTTTCTAGG	TACAATAACA	GTAAAAGTAC	CCACATTTAC	TATGGAGGTA
122501	TTTAATATAT	AGCGTAAACT	AAAAAAACAG	CTATTCAATT	GTTTGATCTT
122551	TTTAAAGCAA	AAGATGAAGA	AAATCAAGGC	AGAAATGATA	AATGAATTTT
122601	AAAACTATA	CAAAAAGAGG	TATTCAAGGC	ACAGAGTCCA	CCTAATGTCT
122651	TAAGTGTGAA	ATGGAAGCAT	TTGACTTGTT	TTAAAAAGGC	CATTAGGTGT
122701	CACTAAGGGT	AAAAAGTTAC	GTTTATCAGC	TTTCAGAAAG	AGGATGGCAT
122751	TCCAAAGGTG	CCTCTGAGCT	CTGAAGCCCA	GCAAGGGATA	AGAGAAATGA
122801	ATCCCAAGTC	CAGCTATTGT	CCAAAAGTCC	TTTTTGTTCC	CTGATACCAT

122851	GACTGAAGTT	GTCATGTCAA	GACATTGCCT	TCTGTCTGTT	CACTACACCT
122901	CATGTTCTCT	CAGTGCTGTG	TTCTTAGAGA	GGCAGTACTG	CTAGTGGTCC
122951	GCGGAATGAA	AACAGCCAGG	TGTAATCACA	CTCTTTTGAA	TGCCTCATGA
123001	GAAGTGCTCT	CTGGACTAAG	TGTAAC TTTC	CTTCTCACAT	CATTTGGAGA
123051	AGGGACCATC	ACAGAATCAT	TTGGAGACCA	CCTGCATCTA	TTCTGCACTT
123101	CTCTCCACAT	TTGCC TATCG	TCTTCTAAGC	AAACCGAATC	TATGGCTGAA
123151	GTTACAAGAC	TCTGCATGTG	GTGTCACAGT	CACCAGAGGC	AGAGGACTCA
123201	AGAGAATATC	CTGGTCCAGA	GCTACTCTGG	GATCTCAAAA	GTCACTTGGG
123251	AAAGCACAGC	ATGTTGAACT	AGACTTTGGT	GTATTTTTCC	AATCTTTATC
123301	AGTCTACAAA	ATATCAACTG	GACATGGAGC	AGTGGTTCAC	TTTGGTGT TT
123351	CCTGTGGCTC	ATGATCTAAG	ATTCTTCAGT	CTGGAAAATA	AACTGCAGAG
123401	ATTACTGTTG	AGGAGCAGCA	AGTGTCAGTC	TGCTCAGCAA	GGGAAGGAGA
123451	CTGAGGGCAA	GGGAAGGAGA	CCGTGCCAGT	AAGGCTAGAA	GGGCCCCGATA
123501	AGGGATCAAG	TGCTAAATTT	TCCAATATTA	TAGCCATAGT	TTAGTGATTT
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123601	CCAGAATGGC	AACAGGTGAT	GATCCCTGTG	GCACATTCTC	TATCTTGAAG
123651	TAAAACAGCA	TGGATCCATA	TAAATACATT	CTTGCTCAAC	AGCAGAAAATA
123701	ACAAACAGTA	TTGCTTACTT	CTACGAATAT	CCTAACAAAA	CATGTAGATC
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123801	CTAAAGCTCT	GTCCAAA ACT	GCACA ACTTA	GGGTGCCCAG	CTTCTGAAGG
123851	GATGTGAAAT	TATCTGTGCT	ATCTCCTTTT	CCCTTCTTGT	GTTAGCTCCA
123901	GTAAACTCTA	TTTTAAGAAA	TACCTTACAG	TTTCTGATTG	TCTTCTTTAC
123951	TGGTATCCAA	AGGGACTCCT	ATGCATTACA	GGGTCCTCCA	GCACAGTGAG
124001	GTTCTTGGCC	TGGTGCAGGC	ATGCAAAGTA	GCTTAGGCAC	GGGTCACAAT
124051	CAAGATACTC	AGTTTAATGC	TTCTCCCAAG	TGATGGGATG	CTAAAATCTT
124101	ACATGATTTT	AAAAGGAAAG	TGTTCAA ACT	GTGGAAGAGA	AATCCACTGA
124151	CAAATAAGAA	AGATACAGAA	AATAAAGTTA	GCTATAGAAG	ACATGGAACA
124201	GGAAATAATG	TTAGA ACTCT	GAGGGCAAGA	GTAAGCCTTA	ACAGTAATGA
124251	CAAGCCTCAC	TGGAGGAGCT	CTTCCACATA	CGTTGTTCTC	ATGGGCCCCAG
124301	GAGTCTGTAC	TGGAAATTGG	CACACAGTTT	GGGTACCGGG	GGCGATCTTT
124351	GTGAGATGAA	GCCCTGAACT	GCCCTGGGTC	AGCTGCAGGT	GTCTCTGTAA
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124451	ACATGGCATC	TCTGCTCAAA	CAGAATCATA	GAATTGCTCA	GGTTGGAAAA
124501	GACCTTAAAG	GTCATCGAGT	CCA ACTGCAA	CCTAACCAAC	TACCCTAACT
124551	CTAACAACCC	TCCTCTAAAT	CATGTCCCTG	AGCACCACAT	CCAAACAGTT
124601	TTTAAACACA	TCCAGGGATG	GTGAATCAAT	CACATCCCTG	GGGAGCCTAT
124651	TCCAGTGCTT	AACAACACTT	TCTGTAAAGA	AGTTTTTCCT	GATATCCAAC
124701	ATAAACTTAC	CCTGGCACAA	CTTAAGGCCA	AATTTAATTA	GAAAATGTAG
124751	CAGCACTGCA	ATGTAGCAAA	TGTAATTACG	AAAAGGTGGT	AGCTGCTAGG
124801	GACAGAGGAC	ATGCAAATAG	ACCCAAAAGA	TAAAGACTAG	AAACAGAAAA
124851	AGGGGACATG	TGAGAGGTAT	GTTTGGAGAA	ACATAACAGA	GGAGATATTT
124901	GAAAGGAGAT	CTTGGGAGCA	CAGGCAAAGA	CACAATCCTG	GGAGGAGGTG
124951	CTCCATGCTA	GAGGATGTAC	CTCTAAGGCA	CCGCAGCCAT	GGGCAACCAA
125001	CACAGGTCAG	CGTCATCCTG	GTGAGACTGT	ATCCCACAAG	CAGCTAACAC
125051	TGGAGTAGGG	ACAGCCCCGA	AGA ACTGCAG	CCCAGGCAGC	ACACTAGAGC
125101	AGAGAAATCT	AGTTAGCAGC	AACCACTGGC	AGACAGAAAT	GATTATATAG
125151	ATTACATACT	GACCC TAGCC	TCTTACACTG	CCTACTGCAT	CACTGAAAGG
125201	ACTGGGAAGA	AGAGAGTGCA	ATAACGTAGC	TGAAACTAGG	AGGAAGGCAA
125251	GGAGAACTGA	AGCTGACTAG	GGAAAAGGGG	GATTAAAGGT	TTAAGTGTCT
125301	ATTCCATAGT	TTGCTGGTTT	GTTTTTTGTC	AATTCCTGAA	TCAGTAATTT
125351	TTATGTTAAT	TAGCAAAAAA	TTACAAACAC	TCCCCAAGTC	AGGACTGTTA
125401	CCTACAACAG	AAGCTCAGAT	CAGCTGAGCC	TTAGTCTTTT	GGTCCCTCCC
125451	TAGGGAATGC	TGTATGTGTC	TCTCTCTCCA	GGCCTGCTCA	AAATTGACCT
125501	CAGACCCAAA	CTTTTGCTGA	ATCTCCAGTA	CCACCTCTTT	TGCTCCTAAC

125551	TAGATAACAA	AGCCCTGAGC	GCTTTGCTTT	TAGCAAAGCC	TTTAAGTGCC
125601	ATTACCAACT	GCACCTGGAG	CCTTTACCTA	CCCCTATGGA	CCCAGGCTCT
125651	ATATTTAAGC	TCTGCCCTGA	ACCTTCACTT	CTTTCCTGTC	CTAAGTTAGA
125701	TGTACTAGTA	TGGTGTGTAC	TATGTCTCCA	GTTCAAACAC	AGCTGTGCCC
125751	ATACCTGGCC	AAGGACTCCT	AGTATGACCT	GGGCTGTGCC	TTGCTGCTAA
125801	GGACCTGCTG	GGTGATTGCT	GGACCTGATC	CTAATCCTGA	ATTAAGAAAT
125851	GATTTCTTGG	CTTGACTGGA	TGTGCCCTGT	GGTATGATAC	TGCCTTATGA
125901	TTTGGACTCT	TGTTTGCAGC	TGTGCAAATC	CCTAAGGAGC	CCAGTCTCTG
125951	GCCACCTGGA	ATCTTGTCAC	TACCAAACCT	CCTGAGGGAC	TGGTCTTGCT
126001	CTGGGTTCTG	ATCTCTGGAC	AGTACTCACC	CTTTACTCAG	CCCAGGCTCC
126051	CAGTTAAGCC	CCTTTCCACC	CTGCCAGGCT	CTCCGCTCCA	TCCCTAGCAG
126101	GGGCTCTCAT	GACAGTGTGA	CCCCCCTTA	CTCAGGTCAG	GGCCACTTGT
126151	GCCACGTTCC	TTTCCTGTCT	TCTGTCCCTG	CCTTGGCTCT	AAAGCAGTGT
126201	GCTACCATCC	ACAACCACTG	CATCTCTCTA	AAGTAAGCCT	CTCCTGAGCC
126251	CAAGTCTCTG	TAACGAGGAA	GGATGCACTT	TGCTCAGAAG	GATGCGAGGC
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126351	CAGGACCACA	ATTCAGCCTG	CTGGAACCAT	CAACTCCTGC	TGGAGTAAGG
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126451	TTGGGCCTGC	TGATCTCAGG	ATGCAGACTT	GCTTCTCAGC	TTGACCTAAG
126501	CATTGCCCTG	TCTTTATGGA	CCCACCTGGT	TAGCAAGTTC	AGTGCAGAAG
126551	GAGGCTGTTG	GCATCTAGCT	AATTTTCCAC	CCACATTACT	GTCTGCTGAC
126601	TCATTCTACG	TCTCTCCCAT	CTTGTTACAA	TAATAATTTG	GGAGATCATA
126651	TTGAAGGTCT	TAATAAAGTC	AAGGCATGTG	ATATTCTCTG	CTTTGCCTTT
126701	GTTTCTAGAA	TAAGCCACTT	CATCATAGAA	GATGAAAATG	CTGATCAGCA
126751	GAGATCTGTG	CTTGATAAAT	CCATGCTGGC	TTTTCTATC	ACCTTATATT
126801	CCTTCATATG	CCTTGAGACA	CCCAAGGAGG	CCTTGGATCA	GAGCTGTCTG
126851	TAGCAGTCCT	AACTGGTATA	CAATTAGTTG	TACAACAGGT	AGTGATCCGC
126901	ATAATAGTTG	GCGTGAGAAA	GTGGGCCTGT	GCTGTGTCAA	GCATAGAGTT
126951	TGGGTTCCAG	TCCTGTTCTG	CATGGCACAT	ATGCCTGAGC	AGCTGGGTAA
127001	TCTCTGCATT	CCAATTGGAA	GGCAGGGGCC	TGTAGGCAGT	TCCCCTTG
127051	CATGGGTGAT	TGTACCACCT	GTGTCCTCAT	CTGTGAAGCA	TCATGTTTTT
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127151	TTCTAAGCA	AATTCTGCAA	GAGCTCTGAA	GAACAAGGTG	TCAGTGAAC
127201	TCTAGCTCCA	TAGATAGGAC	TTGCATCACA	TGTCATGCCT	TGATTGGAGG
127251	TCTATCCGAT	ACTGAACAAC	TTGTGGTTCC	CTGAGGGAAT	GTAAGATTAC
127301	TGATACTACT	CTCTCTTTAT	GTTAGCTACA	ATAAATGGTA	GGTTAAGCAA
127351	TAGATACAGA	GTTTGAGTGC	CTTTCTTACA	AGCATCATAG	TGAACAAATC
127401	CACTGGTGAT	CTACCTTTTC	AATAACTACA	GAGAATTGTA	ATCTCTTGGA
127451	TTCTCCTCCT	TCCCCGTTCT	GAAAATGTGT	TCTTTTTTTC	CAAATCAGAA
127501	ACCTTCCTCA	ACCACCCTGA	CTATTCTTTG	GACATTGTTT	TGTTCTTGCT
127551	CCTAAATAGG	CTTTATAATT	TTTGTAAGTG	AAAGGCTTTG	CATGCAGGTG
127601	AGGCTACAAC	TCATTTCAGTA	ACAATGAGGA	AGACTGTCAG	ATTTTGGGGA
127651	AAATTCTCCC	ACCCAACCTT	TTGCTAGCCA	GTAAGATGTA	ATCACTGAAT
127701	GTCATGCCAC	AAAGACCATA	CCAACATCAG	ACCACATATC	TACAGGAAGC
127751	TTTAAGGAAT	CATTGACTGT	ACAGTGAAGG	GTAAATCAAA	TTAAATGAA
127801	TGTGAGGTCT	GATACGAGAT	ATCCTCATGG	GAATCAAGAG	CAAAGACAAA
Y:OV-1 HOMOLOG Y HS-III SITE					
127851	TAGTTTTTCA	CAGTCTTGTC	ATGATCTGTC	ACAGACCAAG	GCAGCACAGC
127901	AGGCAACAAT	GTTGGTCTCT	TCAGAATGGC	ACAGCACC GC	TGCAGAAAAA
127951	TGCCAGGTGG	ACTATGAACT	CACATCCAAA	GGAGCTTGAC	CTGATACCTG
128001	ATTTTCTTCA	AACAGGGGAA	ACAACACAAT	CCCACAAAAC	AGCTCAGAGA
128051	GAAACCATCA	CTGATGGCTA	CAGCACCAAG	GTATGCAATG	GCAATCCATT
128101	CGACATTCAT	CTGTGACCTG	AGCAAAATGA	TTTATCTCTC	CATGAATGGT
128151	TGCTTCTTTC	CCTCATGAAA	AGGCAATTTT	CACACTCACA	ATATGCAACA

128201	AAGACAAACA	GAGAACAATT	AATGTGCTCC	TTCCTAATGT	TAAAATTGTA
128251	GTGGCAAAGA	GGAGAACAAA	ATCTCAAGTT	CTGAGTAGGT	TTTAGTGATT
128301	GGATAAGAGG	CTTTGACCTG	TGAGCTCACC	TGGACTTCAT	ATCCTTTTGG
128351	ATAAAAAGTG	CTTTTATAAC	TTTCAGGTCT	CCGAGTCTTT	ATTCATGAGA
128401	CTGTTGGTTT	AGGGACAGAC	CCACAATGAA	ATGCCTGGCA	TAGGAAAGGG
128451	CAGCAGAGCC	TTAGCTGACC	TTTTCTTGGG	ACAAGCATTG	TCAAACAATG
128501	TGTGACAAAA	CTATTTGTAC	TGCTTTGCAC	AGCTGTGCTG	GGCAGGGCAA
128551	TCCATTGCCA	CCTATCCCAG	GTAACCTTCC	AACTGCAAGA	AGATTGTTGC
128601	TTACTCTCTC	TAGACCCCCA	AGTCAAACCA	ACTATGCAGG	TATGCTGACA
128651	ACACTATGAT	GACAGCCTGT	TCTGATCAAG	ATCTCATTTG	TTCATGGACA
128701	ATTTTTGTTG	CTTGCAGCTG	GTCTTCCATT	GGGAAAGAGT	GTAGTATATC
128751	CTTCTCATCT	GACAGAAAAG	CAGAAATTCT	CATGCTCCAC	ACTTAATCTA
128801	CATTGTTTTA	AACCACCGGC	TACTTCTTGG	AGAGGAAAAA	TGGCTTTTAT
128851	AGTACTCACA	AAACAAAGCT	CTGCAAGTCA	AATGCATACA	AAACTGTTCT
128901	GTAGGTCTGG	AATCAGGACA	CTATGTGGAA	GTCAAATAGA	GCAGCTTTAA
128951	AAAGCCTTTG	GGATCATTCT	CATCTTATAT	TTGCAGCACG	ATACTATGAC
129001	AGTGATAACT	GACATAACTG	CATCAATTTT	CTTGATATTT	TATTTGTCTT
129051	AAAGTACAAG	ACATAGAGAT	GGACGTAAAG	ATGGACATAT	GACTCAGGTC
129101	TGGACAGGTC	CGTGGTCCAT	GTATGATAAA	AGAGATGAAG	GGAAGGAGAA
129151	TTGAGACTGT	CTAAGAAGGG	CTTCAGGGAC	GTTCTGAAGG	CAGATTTGAC
129201	TGAATCAGAT	GTAATGTCCA	AGTCTCATAT	GTAAGCAATG	AAGGCTGATA
129251	TTGGAGAAAT	ATAAAGAAAT	GGCTGTGAAC	TCAAAGTGAC	CCTGAACAGA
129301	AAAGGGATAT	GGAGTTAAAA	TAATGTCACA	GAAGTGAAGT	TTATATGATA
129351	TACCATGGGC	TGCAGAGGGT	CAGAGTGCTC	CACCATGGGC	CTCTCTTGGG
129401	CTGCAGGGAA	CTTCTGTTCT	ACACCTGGAA	CACCTCCTGC	CCTCCTCCGC
129451	ACTGCACCTC	GTGTCATCAG	GGCTGTTTCT	CTCACATTTT	CTCACTCACC
129501	TCTCCCAACT	ACCATTGTAC	AGCAGTTGTT	CTTACATATT	GCTCCTCCTG
129551	AGGTACATCT	AGCATCGATC	ACTGGCTCAG	CTCTGGCCAG	TGGCAGCTCC
129601	CTTTTGAGGA	CACGGGACAG	CTGCTGGGCT	CTGTTTACAG	AGGCCACTCC
129651	GGCAGACCTC	CACTACCACA	ACTTGTAGTG	TAAATCCACT	ACAACCTTCT
129701	GAGCTACAGA	AATGAAATGG	AGACCTCTC	TGCTATGGGA	TACAAAAGAG
129751	GAAACGTGGC	GTTTAGCTCT	GGCTCACTGG	TACACCCAAC	CACAGGGTGA
129801	GAAGCAGCCT	GTTGTTATTC	ACTACTCTTA	GGACAGATTA	TGGTGAATTG
129851	TTAATAAAAAG	CATTTCTTCA	TAACATCCAA	AGGAGGAAAT	ACACTAAATT
129901	ATATTTTTTTA	TTAATTAAAT	ACACATGCTT	AATTATATAT	GGCATGGTTG
129951	CTTTGGAAGA	ATCTTGTCCT	TACTGACCAG	ATCTGCTGTT	TGCTGAGACA
130001	AAATGGCTGA	CAATTTTGGC	CATGGTGGAT	ACCTTCCCCC	TTTTCTGTAG
130051	CATTAGGACA	GAAGTTATTC	TGGAGCCTGT	CTGACAAGTT	AGACTTGATA
130101	CCTTTAAGTA	TTTGGAAGTG	TGCTTTTCAT	GCTGGATGTC	ATCTCCAGAA
130151	CCTCCCTGTC	TGGTAAGCAG	TTCCCTGCCT	TAGTAAGAGC	CGAAACGGTC
130201	TCTCTTTTCC	TTGTTATCTC	ACCAGGATAT	TACAATGTGA	CAGGACTATC
130251	TGAATATGAC	CAACCTGCAA	ATTCCAAATA	TATATATATA	TATAAGATAT
130301	CTATACACAA	ATTATTAGTG	TTTGATTGAC	ACCAGATGAC	AGAGAAGTGC
130351	ATCTGAGAAA	ACCTATTCCC	AATCTCCTTT	CTCTTTCTGC	AGACTGACAT
130401	GCATTTTCATA	GGTAGAGATA	ACATTTACTG	GGAAGCACAT	CTATCATCAC
130451	AAAAAGCAGG	CAAGATTTTC	AGACTTTCTT	AGTGGCTGAA	ATAGAAGCAA
130501	AAGACGTGAT	TAAAAACAAA	ATGAAACAAA	AAAAATCAGT	TGATACCTGT
130551	GGTGTAGACA	TCCAGCAAAA	AAATATTATT	TGCACTACCA	TCTTGTCTTA
130601	AGTCCTCAGA	CTTGGCAAGG	AGAATGTAGA	TTTCCACAGT	ATATATGTTT
130651	TCACAAAAGG	AAGGAGAGAA	ACAAAAGAAA	ATGGCACTGA	CTAAACTTCA
130701	GCTATGGTGA	TAGGAAAGTA	ATTCTGCTTA	ACAGAGATTG	CAGTGATCTC
130751	TATGTATGTC	CTGAAGAATT	ATGTTGTACT	TTTTTCCCCC	ATTTTAAAT
130801	CAAACAGTGC	TTTACAGAGG	TCAGAATGGT	TTCTTTACTG	TTTGTCAATT
130851	CTATTATTTT	AATACAGAAC	AATAGCTTCT	ATAACTGAAA	TATATTTGCT

130901 ATTGTATATT ATGATTGTCC CTCGAACCAT GAACACTCCT CCAGCTGAAT
 130951 TTCACAATTC CTCTGTCATC TGCCAGGCCA TTAAGTTATT CATGGAAGAT
 131001 CTTTGAGGAA CACTGCAAGT TCATATCATA AACACATTTG AAATTGAGTA
 131051 TTGTTTGGCA TTGTATGGAG CTATGTTTTG CTGTATCCTC AGAATAAAAG
 131101 TTTGTTATAA AGCATTCACA CCCATAAAAA GATAGATTTA AATATTCCAA
 131151 CTATAGGAAA GAAAGTGTGT CTGCTCTTCA CTCTAGTCTC AGTTGGCTCC
 131201 TTCACATGCA CGCTTCTTTA TTTCTCCTAT TTTGTCAAGA AAATAATAGG
 131251 TCAAGTCTTG TTCTCATTTA TGTCTGTCT AGCGTGGCTC AGATGCACAT
 131301 TGTACATACA AGAAGGATCA AATGAAACAG ACTTCTGGTC TGTTACTACA
 131351 ACCATAGTAA TAAGCACACT AACTAATAAT TGCTAATTAT GTTTTCCATC

NRE: A, B, C regions

131401 TCCAAGGTTT CCACATTTTT CTGTTTTCTT AAAGATCCCC TTATCTGGTT
 silencer (common site)
 131451 GTAACTGAAG CTCAATGGAA CATGAGCAAT ATTTCCCAGT CTTCTCTCCC
 131501 ATCCAACAGT CCTGATGGAT TAGCAGAACA GGCAGAAAAC ACATTGTTAC
 131551 CCAGAACTAA AAACTAATAT TTGCTCTCCA TTCAATCCAA AATGGACCTA
 131601 TTGAAACTAA AATCTAACCC AATCCCATT AATGATTTCT ATGGTGTCAA
 131651 AGGTCAAAC TCTGAAGGGA ACCTGTGGGT GGGTCACAAT TCAGACTATA

Ovalbumin exon L

131701 TATTCCCCAG GGCTCAGCCA GTGTCTGTAC ATACAGCTAG AAAGCTGTAT
 131751 TGCCTTTAGC AGTCAAGCTC GAAAGGTAAG CAACTCTCTG GAATTACCTT
 131801 CTCTCTATAT TAGCTCTTAC TTGCACCTAA ACTTTAAAAA ATTAACAATT
 131851 ATTGTGCTAT GTGTTGTATC TTTAAGGGTG AAGTACCTGC GTGATACCCC
 131901 CTATAAAAAAC TTCTCACCTG TGTATGCATT CTGCACTATT TTATTATGTG
 131951 TAAAAGCTTT GTGTTTGTTC TCAGGAGGCT TATTCTTTGT GCTTAAAATA
 132001 TGTTTTTAAT TTCAGAACAT CTTATCCTGT CGTTCCTAT CTGATATGCT
 132051 TTGCAGTTTG CTTGATTAAC TTCTAGCCCT ACAGAGTGCA CAGAGAGCAA
 132101 AATCATGGTG TTCAGTGAAT TCTGGGGAGT TATTTTAATG TGAAAATTCT
 132151 CTAGAAGTTT AATTCCTGCA AAGTGCAGCT GCTGATCACT ACACAAGATA
 132201 AAAATGTGGG GGGTGCATAA ACGTATATTC TTACAATAAT AGATACATGT
 132251 GAACTTATAT ACAGAAAAGA AAATGAGAAA AATGTGTGTG TGTATACTCA
 132301 CACACGTGGT CAGTAAAAAC TTTTGAGGGG TTTAATACAG AAAATCCAAT
 132351 CCTGAGGCCC CAGCACTCAG TACGCATATA AAGGGCTGGG CTCTGAAGGA
 132401 CTTCTGACTT TCACAGATTA TATAAATCTC AGGAAAGCAA CTAGATTCTAT
 132451 GCTGGCTCCA AAAGCTGTGC TTTATATAAG CACACTGGCT ATACAATAGT
 132501 TGTACAGTTC AGCTCTTTAT AATAGAAACA GACAGAACA GTATAAATCT
 132551 TCTATTGGTC TATGTCATGA ACAAGAATTC ATTCAAGTGGC TCTGTTTTAT
 132601 AGTAAACATT GCTATTTTAT CATGTCTGCA TTTCTCTTCT GTCTGAATGT
 132651 CACCACTAAA ATTTAACTCC ACAGAAAGTT TATACTACAG TACACATGCA
 132701 TATCTTTGAG CAAAGCAAAC CACACCTGAA AGTGCAATAG AGCAGAATAT
 132751 GAATTACATG CGTGTCTTTC TCCTAGACTA CATGACCCCA TATAAATTAC
 132801 ATTCCTTATC TATTCTGCCA TCACCAAAAAC AAAGGTAAAA ATACTTTTGA
 132851 AGATCTACTC ATAGCAAGTA GTGTGCAACA AACAGATATT TCTCTACATT
 132901 TATTTTTAGG GAATAAAAAT AAGAAATAAA ATAGTCAGCA AGCCTCTGCT
 132951 TTCTCATATA TCTGTCCAAA CCTAAAGTTT ACTGAAATTT GCTCTTTGAA
 133001 TTTCCAGTTT TGCAAGCCTA TCAGATTGTG TTTTAATCAG AGGTACTGAA
 133051 AAGTATCAAT GAATCTTAGC TTTCACTGAA CAAAAATATG TAGAGGCAAC
 133101 TGGCTTCTGG GACAGTTTGC TACCCAAAAG ACAACTGAAT GCAAAATACAT
 133151 AAATAGATTT ATGAATATGG TTTTGAACAT GCACATGAGA GGTGGATATA
 133201 GCAACAGACA CATTACCACA GAATTACTTT AAAACTACTT GTTAACATTT
 133251 AATTGCCTAA AAATGCTCG TAATTTACTG TTGTAGCCTA CCATAGAGTA
 133301 CCCTGCATGG TACTATGTAC AGCATTCAT CTTACATTT TCACTGTTCT

Ovalbumin exon 1

133351 GCTGTTTGCT CTAGACAACT CAGAGTTCAC CATGGGCTCC ATCGGTGCAG

133401	CAAGCATGGA	ATTTTGT TTTT	GATGTATTCA	AGGAGCTCAA	AGTCCACCAT
133451	GCCAATGAGA	ACATCTTCTA	CTGCCCCATT	GCCATCATGT	CAGCTCTAGC
133501	CATGGTATAC	CTGGGTGCAA	AAGACAGCAC	CAGGACACAA	ATAAATAAGG
133551	TGAGCCTACA	GTTAAAGATT	AAAACCTTTG	CCCTGCTCAA	TGGAGCCACA
133601	GCACTTAATT	GTATGATAAT	GTCCCTTGGA	AACTGCATAG	CTCAGAGGCT
133651	GAAAATCTGA	AACCAGAGTT	ATCTAAAAGT	GTGGCCACCT	CCAACTCCCA
133701	GAGTGTTACC	CAAATGCACT	AGCTAGAAAT	CTTGAAACTG	GATTGCATAA
133751	CTTCTTTTTG	TCATAACCAT	TATTTTCAGCT	ACTATTATTT	TCAATTACAG

Ovalbumin exon 2

133801	GTTGTTCACT	TTGATAAACT	TCCAGGATTC	GGAGACAGTA	TTGAAGCTCA
133851	GGTACAGAAA	TAATTTTACC	TCCTTCTCTA	TGTCCTTTTC	CTCTGAGAAG
133901	CAAAATACAG	CAGATGAAGC	AATCTCTTAA	CTGTTCCAAG	CCCTCTCTGA
133951	TGAGCAGCTA	GTGCTCTGCA	TCCAGCAGTT	GGGAGAACAC	TGTTTATAAG
134001	AACAGAGAAA	AAGAAGGAAG	TAACAGGGGA	TTCAGAACAA	ACAGAAGATA
134051	AAACTCAGGA	CAAAAATACC	GTGTGAATGA	GGAAACTTGT	GGATATTTGT
134101	ACGCTTAAGC	AAGACAGCTA	GATGATTCTG	GATAAATGGG	TCTGGTTGGA
134151	AAAGAAGGAA	AGCCTGGCTG	ATCTGCTGGA	GCTAGATTAT	TGCAGCAGGT
134201	AGGCAGGAGT	TCCCTAGAGA	AAAGTATGAG	GGAATTACAG	AAGAAAAACA
134251	GCACAAAATT	GTAAATATTG	GAAAAGGACC	ACATCAGTGT	AGTTACTAGC
134301	AGTAAGACAG	ACAGGATGAA	AAATAGTTTT	GTAAACAGAA	GTATCTAACT
134351	ACTTTACTCT	G TTCATACAC	TACGTAAAAC	CTACTAAGTA	ATAAACTAG

Ovalbumin exon 3

134401	AATAACAACA	TCTTTCTTTC	TCTTTGTATT	CAGTGTGGCA	CATCTGTAAA
134451	CGTTCACTCT	TCACCTTAGAG	ACATCCTCAA	CCAAATCACC	AAACCAAATG
134501	ATGTTTATTC	GTTTCAAGCTT	GCCAGTAGAC	TTTATGCTGA	AGAGAGATAC
134551	CCAATCCTGC	CAGTAAGTTG	CTCTAAAATC	TGATCTGAGT	GTATTTCCAT
134601	GCCAAAGCTC	TACCATTCTG	TAAATGCAAAA	ACAGTCAGAG	TTCCACATGT
134651	TTCACTAAGA	AAATTTCTTT	TTCTCTTGTT	TTTACAAATG	AAAGAGAGGA
134701	CAAATAACAT	TTCTCTATCA	CCGACCTGAA	ACTCTACAGT	CTTCAGAGAA
134751	TGAATGGCTT	GCTAAAAGAA	TGTCAAAATCT	TACTATACAG	CTATTTTATA
134801	TTACACTACT	AAATACACTA	TAAGGCATAG	CATGTAGTAA	TACAGTGTAA
134851	AATAGCTTTT	TACACTACTA	TATTATTAAT	ATCTGTTAAT	TCCAGTCTTG
134901	CATTTACAT	TTGCAAAACG	TTTTGAAATT	CGTATCTGAA	AGCTGAATAC

Ovalbumin exon 4

134951	TCTTGCTTTA	CAGGAATACT	TGCAGTGTGT	GAAGGAACTG	TATAGAGGAG
135001	GCTTGGAACC	TATCAACTTT	CAAAACAGCTG	CAGATCAAGC	CAGAGAGCTC
135051	ATCAATTCTT	GGGTAGAAAAG	TCAGACAAAT	GGTAAGGTAG	AACATGCTTT
135101	GTACATAGTG	AGAGTTGGTT	CACCCTAATA	CTGAGAACCT	GGATATAGCT
135151	CAGCCAGCGT	GCTTTGCGTT	CAAGCTTACC	AGAGCTGTTG	TATGCCTGTT
135201	AAGCAGGGCA	TACAGTCATG	AGGCTCTTGA	AAAATCTTAA	CAGACAAAGG
135251	GCAATGGAAA	ATCGGAGTTA	AGGGATGGTA	GGGATAAAAT	GCATAGAAAG
135301	AGGTACCACA	ATTTTGATTT	TTGCCCTAAT	GCCTCTCTGC	GTGGTTCCCTC
135351	AATTTTCTTA	CTTCATTCTT	CATCTCCTCA	GAGCATTCTT	TTCCCTCATG
135401	CTTGAAACAC	AGATGAAAGA	CTGTGAATTC	TAACTGAGAT	GAAAACATCC
135451	ACAACCACAC	AACCTCTGGT	GTGGAGTCAC	ATTCTGTGAA	GGCAAAAACCT
135501	AGGCCACGTA	ATCTATGTGT	GCAAGCTACG	TGTAAGCTAT	GTGTGTGACA
135551	GGACAATGTG	AGGAACATAC	TATGTGCACA	AGGACTGCAG	AATAAACAGG
135601	AGCAAAGTTT	TTGAAGAAAA	CAGAGTAAAA	TCCTGTTTTT	CTCTTTTGTT
135651	ACATTCTTTA	CATATATCTC	AAATTTCTCT	TTTGGTTAGA	AGCAAGTAAT
135701	ATTTATGTTT	CTTGGTACTG	TTTGGGTTGA	AGACCATTCT	GGGATAAGAG
135751	AAATTCAGT	GGTTCTTCCC	CTAATCATAA	AATGTACAGG	TTTAGTTTTT
135801	TTGTAACACA	GAAATCTCTT	CATCTTTTAT	CTTTTGTTGT	GATTCCTTAT
135851	AGAGAGAGAA	ACAAGACTTA	CTGACAATAG	CAGCAAGAAA	ATCAATCTTG
135901	GAAGAACAAG	ATTGCAGTTG	CAAAAACAAA	CCAATGTCCT	TGCCCCCTACA

135951 TCCTCTTCCC CATAAATTCT ACATTCTCTA TCTACCTTGT GCTTGCCAAC
 136001 ATGATATACG TAAACTCTCT TTTCTGATTC ATTCTTAAAG GAATTATCAG

Ovalbumin exon 5

136051 AAATGTCCCT CAGCCAAGCT CCGTGGATTC TCAAAGTACA ATGGTTCTGG
 136101 TTAATGCCAT TGTCTTCAAA GGACTGTGGG AGAAAGCATT TAAGGATGAA
 136151 GACACACAAG CAATGCCTTT CAGAGTGACT GAGGTATATG GGCATACCTT
 136201 AGAGATGTAA TCTAGAATTT ATGAAGAGAG TAGACATGTT GTTATATGAA
 136251 CACTGCATTA GCGTATCTGC TCATTGTGCT GCATCTCTTT CAGACACTGT
 136301 GTTAAAAGCA GGAATTTTTC CTTATGTCTC TCTCATCACA ATATTCCTGA
 136351 CATTGCAAAG CTCCTGAGAA ATAACCTCAG ATCCCACTT TTCCTAGGAA
 136401 GGTCTTCTCT GATGAGAACA ATCAATCATC TTAAGTGTAA CTAGATATTT
 136451 CTGCATCTAA GAATAATCTT TGTTAAAACCT ATATTCTCTC TCTCTTTTTT

Ovalbumin exon 6

136501 TTTTTTTTTT GGTCTCCAG CAAGAAAGCA AACCTGTGCA GATGATGTAC
 136551 CAGATTGGTT TATTTAGAGT GGCATCAATG GCTTCTGAGA AAATGAAGAT
 136601 CCTGGAGCTT CCATTTGCCA GTGGGACAAT GAGCATGTTG GTGCTGTTGC
 136651 CTGATGAAGT CTCAGGCCTT GAGCAGGTAT GGCCCTAGAA GTTGGCTTCA
 136701 GAATATTAAA AACACATGGA AATTTAGCTG TTGTAAAGCT CTTTTCAACA
 136751 CAGTTATCCT AAAACATTTA ACCAGCACAA ATTTTCATCAT GATTCAATAT
 136801 GTGATTGTTG CATAGAAGTG TAGATTTGTC CCACTGGGTC CTGCAATAGC
 136851 CCATGCTGAG CATGGCTTGC TGAAAGAACT GCTTTAGAGG GTGAAAAGTT
 136901 TGACACAGCA GACAAGATGA TTCTCACCTA AGCAGCTGTT ACTGTAGTGG
 136951 CTTGAACTCT AAAGGTCTTG TATCTCCATT CCTGTGCACT GAGGAGCTTC
 137001 TTGGAAGTT CATATAAGGT TTAGTAGTTC TAAGTATTAT CTCATTTGGT
 137051 GGCATCAAT GTGCTTTGTT CACGTCTTCA TAAATTAATC TATCTAAAAA
 137101 TTGGATGTGG TTAAAGCAAT TTCAGAAATA ACATGTACAT AATGTACAAT
 137151 TATTGATATG AACAGAACAC AGGCATAGCA TATTGTAATT AGGAGGACTG
 137201 TAGTTATTTT GAATAGGAAA CACAATGTAA TAAATGAGAA TTCATTGAAA
 137251 TGTTAGTAGT CTAAGTCAAT CTAAATTATA AAGATAAAGA GGCATTTAAT
 137301 CACAGCTAGA TTTCCATCAC TTGTGACAGA CAGGCATATG AATGATTATG
 137351 TACAGCTCTA GAAAAAAAAG TATGTAGGAA AACTAGTACA TTTTGATTAG
 137401 AAAGTCTGAA AATGAGGTGC CTTGATCAAA GAGAATACGT GTGTTTGAGA
 137451 AAAAAAAGT TTGGATAGAG GTGGTAAGAG AGAATATATT GAAATGGTGT
 137501 TTCTACAAAC TGCCATGGCC AGATTGTGT AAGAGACATT CAGTAAGTAG
 137551 GCAAGGAAAG AAATATTACT AGGTACAAAG CAACATTAGT AATACCAAAA
 137601 GAAACCAATT ATTCCAGATG CCAATCTCGT AATAGGGTTA AGAGATTTCC
 137651 ACCCTCTAG TAGTCACCAG TGCAACCAGT AACTTTGCTA ATTTACATTT
 137701 TCTTTTTTTA AATGGCAGAT ATAGCTTTGA ACTGAGTGAT CATGAACTGG
 137751 TACTGTGTAA ATAAGATGGA AGCATACTTG GGAGCTAAAC TTCTAGTTTT
 137801 TAAAACTCA AATTCTCTTG AAAGATCAGT TCCCAGTCTA GTAACAGCTG
 137851 ATAGTTTAAG TATCAGTAAT TGGCTACCAT TAACAAGTGG CTCCTGAGAG
 137901 GTCTTAAATG TAGAGACAGC TTTAAACTCA AAAGCACAGA GTGATTTTTA
 137951 GAATAGATTT CCCAAGCAAA GAAAATAAAC AGGGAGGAGC TTTAAGGGAG
 138001 TAGCCATCTC ATTATTATTA TTATTTAAAG AAATGGCAGC AAGGCTATAA
 138051 AAGAAAAATA AGACAGAGCA GAGAAGAAAG AGTCATGGTA TGCTTTTCTA
 138101 TCTTAGCAAA ATTAATCTCT ACATGCCTAG GAAAAAGCCA TGACAAGAGC
 138151 AATCAGTTCA AAAGGTGTAT GCAAAAAAAC ACATAATAGT AACTAGTACT
 138201 GCATTGCCAG GAAGGAAGTT ATGTCGCCAT TCCATGGATC TCATTCTCAT

Ovalbumin exon 7

138251 TTCCTTGAC CTTGAGAGTA TAATCAACTT TGAAAACTG ACTGAATGGA
 138301 CCAGTTCTAA TGTTATGGAA GAGAGGAAGA TCAAAGTGTA CTTACCTCGC
 138351 ATGAAGATGG AGGAAAAATA CAACCTCACA TCTGTCTTAA TGGCTATGGG
 138401 CATTACTGAC GTGTTTAGCT CTTGAGCCAA TCTGTCTGGC ATCTCCTCAG
 138451 CAGAGAGCCT GAAGATATCT CAAGCTGTCC ATGCAGCACA TGCAGAAATC

138501	AATGAAGCAG	GCAGAGAGGT	GGTAGGGTCA	GCAGAGGCTG	GAGTGGATGC
138551	TGCAAGCGTC	TCTGAAGAAT	TTAGGGCTGA	CCATCCATTG	CTCTTCTGTA
138601	TCAAGCACAT	CGCAACCAAC	GCCGTTCTCT	TCTTTGGCAG	ATGTGTTTCC
138651	CCTTAAAAAG	AAGAAAGCTG	AAAAACTCTG	TCCCTTCCAA	CAAGACCCAG
138701	AGCACTGTAG	TATCAGGGGT	AAAATGAAAA	GTATGTTATC	TGCTGCATCC
138751	AGACTTCATA	AAAGCTGGAG	CTTAATCTAG	AAAAAAAATC	AGAAAGAAAT
138801	TACACTGTGA	GAACAGGTGC	AATTCACTTT	TCCTTTACAC	AGAGTAATAC
138851	TGGTAACTCA	TGGATGAAGG	CTTAAGGGAA	TGAAATTGGA	CTCACAGTAC
138901	TGAGTCATCA	CACTGAAAAA	TGCAACCTGA	TACATCAGCA	GAAGGTTTAT
138951	GGGGGAAAAA	TGCAGCCTTC	CAATTAAGCC	AGATATCTGT	ATGACCAAGC
139001	TGCTCCAGAA	TTAGTCACTC	AAAATCTCTC	AGATTAAATT	ATCAACTGTC
139051	ACCAACCATT	CCTATGCTGA	CAAGGCAATT	GCTTGTTCTC	TGTGTTCCCTG
139101	ATACTACAAG	GCTCTTCCTG	ACTTCCTAAA	GATGCATTAT	AAAAATCTTA
139151	TAATTACAT	TTCTCCCTAA	ACTTTGACTC	AATCATGGTA	TGTTGGCAAA
139201	TACTATTAT	TACTATTCAA	ATTGTTTCC	TTGTACCCAT	ATGTAATGGG
139251	TCTTGTAAT	GTGCTCTTTT	GTTCTTTTAA	TCATAATAAA	AACATGTTTA
139301	AGCAAACT	TTTCACTTGT	AGTATTTGAA	GTACAGCAAG	GTTGTGTAGC
139351	AGGGAAAGAA	TGACATGCAG	AGGAATAAGT	ATGGACACAC	AGGCTAGCAG
139401	CGACTGTAGA	ACAAGTACTA	ATGGGTGAGA	AGTTGAACAA	GAGTCCCCTA
139451	CAGCAACTTA	ATCTAATAAG	CTAGTGGTCT	ACATCAGCTA	AAAGAGCATA
139501	GTGAGGGATG	AAATTGGTTC	TCCTTTCTAA	GCATCACCTG	GGACAACTCA
139551	TCTGGAGCAG	TGTGTCCAAT	CTGCCGCTGC	CCTGATCCTG	GCTGGGGTGA
139601	TGGGACAGAC	CTTGGCTGCC	ACTGAGACAT	CTGAGACACT	GAGATCTGTC
139651	TCAACTCAGA	TTTACCCAAG	AACAGATCAT	TGCCAACAGA	ACAAAATCTC
139701	AAACTTATGG	CTAGTGATGA	CAGCAGTCAG	TTGTCCCATC	TGTGACCCAC
139751	CAAGGCTGGC	ATGCTGGAAT	GAGCAGGCTT	TGGTGGCTTG	TAGTTACTGG
139801	ACAGCAACCAC	TGACATGGGC	AGGGGAAAAA	CTGAGCATGG	TGTAAATCAC
139851	TGCCTCAAAG	CCACTTCTCT	GTGCCTGCAC	CATGCTTGAA	AGCTCTTCTA
139901	CAGGAGCTGG	GTTTGTTCAA	GAAAGCTTCT	GTTTCTCCCA	TCTGCTTCTT
139951	GTACCTTCAC	AGGGACAGAG	TTAGAAGGGT	ACAGCCATGG	CTGGAAGGGG
140001	CTGACTTTCA	AATGTGCCTA	ATTTTCTTTT	GGTTGCTGCT	GCAGCTGCAG
140051	AAGAAGGGGT	TCAGAAGCCA	AGAGCTTTGA	GATAAGGATG	CCTAACCTAT
140101	GTTGAAGACA	TTTGTGCTGA	CACCTCAGGC	CCCAGGATAG	GACAACTGCT
140151	GGATTGTGGC	TAACCCACTA	GCTACAGAAC	CTAATTTATA	TTACCAGATT
140201	AGGAAGAGCA	AAAGAACATG	TATTTATAAC	AGGAGGTCTT	CTGTGCTTCT
140251	CTACTAAAAG	GTGCTGTGAA	GGAGCCCACA	GTGCAGCAGT	GTATGAGGCC
140301	TGAAAGAGGC	CGCAGCACAC	GAAGAGCCCT	GGTAGGAGCA	GCACACAGAG
140351	GGGCAGGAGG	GCTGGGGGAA	TGCCACCCA	TGGGGACCTG	TGTGAAGCAG
140401	TGCACTCCTG	AGGGGTGGAC	TCGCTGGGAA	AGGAAAAGAA	AGCAAACAGA
140451	CCTGTGATGA	ACTGTCACAC	AGACTGCAGA	GTGACAGAGG	AGGGCTTGAG
140501	GCAGTGCCTG	TACTGCAGGG	AGTGGCGCTC	CTTCCTCACA	GCAGCGCTAA
140551	CAGCTTGGCA	CCAATATTCA	GTAGTCTGTG	GTGATGCTTT	TTCCAGTTTC
140601	ACCACACAGC	ATTTTCGCTT	TTCTACTTGT	TTTAGCTTTC	CCCCCTCACA
140651	AGATAACACA	TACTTTGCCA	GTCAGTCCCT	AAGACCTTAG	CCTAACAGTT
140701	AGCAAACAGG	ATCTTGCAAA	AGAAGGAAGA	TAACATGACA	CCACCTTCAC
140751	TGGTGTATAA	ATAGTTCAAA	TACTTTCCCT	CACTTTCCCG	TAAATTAGTT
140801	GATTGCAGGT	CAGGAGATAA	CAGGGGAACT	TACTGCAAGA	GAGAAAATGA
140851	TGTTTAATAT	TGTCTTGGAC	TTTCTGGTGG	TCTGGGCATG	AAAATGGAGT
140901	ACTCAAATC	CTCAGGACGT	TTATTTTCA	CCTGATTTAT	TCCCAAACCTG
140951	CACATTTTCT	AGGCCATTGG	AGTTCTTATC	AATTAAATTA	TACTTTGGCT
141001	CTCTGCTATC	TCACTCCCTT	TCACTTTCAG	CATCACTTTC	AGCACAATTA
141051	CAGGAGAAGA	CTTAGACTCA	GAGCTTTAGG	ACTCATCATA	AGAGGCTTTC
141101	ATTGCTCTGT	CACCACACCC	CATATAGATC	TGTAGTATAC	CACACATGTG
141151	AAGAAGCACA	GTACATTAGT	GCATTACAGA	GAGACAAAAC	CACACCTATT

141201	TGTGTGCCTG	CAGTCTTACA	CCAGCAGGAA	GATAATTAAC	GTAATGAATT
141251	TCTATAAAAA	TGAGAGAATA	TGGCCCCTGG	GTCCTACTGC	TTGTTCTAGT
141301	CCTGATTCTT	CAAACGTAAG	AATGCAAGTA	AAATTACTCA	CTTGAACAAA
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141401	TTTCCAGTAC	TTCTGGCTGG	AACGGGCAGC	TGAAAATCAC	CTGGTCCAGC
141451	ACCTTGCTCA	AAGCAGGACT	ATCTTCAAAG	CCATATCAGA	TAGCTCCAGA
141501	CCTTCCCTAG	TCAAGTGTTG	CCTATCTGCA	TGGTTGGAGA	ACCCACAGCC
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141601	GTAGTGAAAG	CCATTCAACT	GGCTTTACTT	TCTCTTACCA	AATGAGAGTT
141651	AGCTGCAGGT	GAAAATAAGC	CCTGCCAGTT	CTCATTTTTT	CTCCCACAGC
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141801	CAACAAATTC	CTACATTTAA	CAATATTTAA	GAGCAAAGGC	CAGACCATAT
141851	GTAGCTGCAC	ACTACACATT	TTTAGACCCA	ATAGTATAAT	TTTACTTTTG
141901	ACTCCATGTT	GCTGCCATGT	GGATAACAAT	GCGCAATCAT	TTGTACCTGG
141951	CTTCCTTTTC	TAACTAGTAT	ACTCTTAAAC	GTCACAAGAT	AAAGACTCTA
142001	GTTCTGTATA	GTCTAGCTGA	CTTGTGACAA	GAGCAAACAC	TCACAATTTT
142051	ATGGTACTCC	TGAGGAAAAA	AAGGATCCCA	AACTAATTTT	GAGCTTTTAC
142101	ATATTTTTTT	TTAACCTACA	GAGCACCTTG	CTACTTCTGC	TGAATGTTAG
142151	CAATAGCAAC	CCACAGTCTG	AAATCAATGC	AATGAACTTC	TACTATGGGT
142201	ACCATACTGA	TGACAGGAAT	AGTGCAAGTC	CTTACACTGG	AAGGCTGACT
142251	CCTTAGTCAC	ATAGGTAAAA	TTTAGAAAAT	GCAGCTCTGA	TAAGAGATCA
142301	GTATGGGAAA	GGGAAAATAA	TGGGGTGCCA	GATGAGTGCA	CCTTCCTGAA
142351	AGGAAGGCAG	ATATATGGGA	ATTAAAGGTG	GACAAGGGAT	GCTGTGGAGG
142401	TACCATCAAC	TTTCACAGGG	CTGTATGTAA	AAGCAGCTCT	CTTTCCTGTT
142451	GATTCTCCGC	TGCCTCATTT	CTTCTGGGCA	AAGTTTGTTA	CTCTCCAGTA
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142551	TTTTGTCTCG	TCCTTCAGCA	TACCTCTACCT	GCTTCTTAAG	GTAGTGAAGT
142601	AAGAGGGCAG	TTCTGGAGTC	AAGCTCTGTT	TCTATGAGGG	TAAAGGCCAG
142651	GGAGAGAAAG	GTTTGGGAGT	GTGAGGAGAG	CCTTTTTCTT	GTGTTGTTCA
142701	AGTACTTAGT	CCAAGCTGCT	TTCAGCTGCA	TCTGCAGAAG	ATGGGGAATG
142751	GAGGGTGATC	AATGCCATTC	CTCCAGCCAC	AGAGCAAGGG	CTTTGCCTCT
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142851	GCAGAGTCCA	AGGTAAAGAG	GCTTTGTCTA	CAGCTAGGTC	TATGTTCCCTA
142901	GAGAAACAAT	TAGCAACTGC	AAAATCAAGA	GGTACTAAGA	AAGCCTCTGA
142951	AGCTATACCC	AGGGGTCTGG	CAAATGAAGG	GGGACAGATC	AAGAAGAAAG
143001	AAGAGTCTAG	AGCAGTTTAA	GGGAATAATG	CCACTAGTTT	TAAGCCACAC
143051	ATCTGGTGGT	AAGCTTTTAA	CTTTGAAAGA	GACAGAAATC	TCAAGATACA
143101	CCAGCCCAAA	ATATAATGGA	GCCATAAAGG	TCTGCACGTA	GCTGAATCCC
143151	AAGTGGAAAG	AACAGCTTCA	AAGAGCTTGG	AAGTGCTGAG	GTGAAGAAGA
143201	GCATGTGATC	ATTAGATTTT	AAAAGAAGGT	CCTCAGCACA	ATAACCAGAA
143251	AGTTCACCTT	TCTGTGGGAC	AAAAGATGCG	TCCCTCACAA	AGGCTGGGGG
143301	AACAAAATCT	TTGCATCTCA	TTTTGCCTGA	GAGGAGAAGG	AAATACAAGA
143351	TCATCTTGTT	TTACTTGGTG	TGTATCACAT	CATTAATTTT	TATTTGGTCA
143401	CTACTATGCA	GAACCTTGCTA	ACTTGAACCA	TGTAAAAAGC	ACACTAGGTC
143451	TCAAGAGACT	AAAATGCTTC	TTGCAACAGG	CAGAGTGTTA	GAGATGGAAG
143501	GATGGAAAAA	TCTTGCAGTG	ATGAAGGCAC	TGATAAGAGA	TGTTGAAATG
143551	ATACTAACAA	ATGGCACTCT	ATCTTTCCCA	AGATCTTTGT	CAGCATGAAG
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143651	AAGACTTGCT	GCATACACAA	GCGCACTTAG	TCAGGTCACT	CAGATCAGTC
143701	TCATGCTAAA	AAGTGTGAAA	ATAGAAATAC	AAATAAGGGG	CCAAGCAGAT
143751	TACTGAACAG	CAAAGATTGC	CAGTACGTGT	CCACAATGAG	TATTTGGACA
143801	TTTCACTGCC	GAAACTTCTG	AAAATATCAA	CTGCCTTATG	AAACTCTGGT
143851	TATTCACCCG	CACAGGAGTA	TTTGTGGTTG	AGCTGCATGA	AGAAATAGCA

143901	AGTGTTTTAAA	CTGATTTCTT	AAAAGAGAGC	CTTTCCTCTA	CATGCTGCTC
143951	TTGCACATCC	ATGCGTGGCT	CCTCTTCAGG	AGCAGGAATT	GGTTTTCTGA
144001	TTCAGCAGTT	GTGTAGCTGA	CGTAGTTATA	CCCTTTGAGA	GATTTCTTCA
144051	GAAAAATGAC	ATGTTTAGGC	TAAAGTGCAT	GTAATCCACA	CATACACCAT
144101	TACTCACAAT	GAAGTACTAT	GCAGCATGAA	ATTGAGGCTA	TTCTTCTTCA
144151	TATTTTTTGGT	TTTAATTGCT	ACCTTGGTTA	CTTAAAAAAT	GCTCACCATC
144201	TGATTCATGC	AAAGGAAAAC	TGCACACTGG	TAGATGTGAG	AACAGCACGC
144251	ATACTCACTT	CCAGATAAAC	TAATCTCTAC	TCAGATATCG	AGATCATTGC
144301	TTCTCCAGAA	GTGTTGCACT	GGTCATCAGA	ACTGAGTATC	TCAGGAAAAG
144351	CACTGTCTTT	TCTAATTACG	GCATCTAAGC	TAAAGCACAC	AGCGGTAATA
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144451	CACGCCTTTG	CGTTCCTGCAG	GTGTGGAGCA	AAATGCCTCA	GTGATATTTA
144501	GACAGGAACA	CCACCACACC	TCTTAACAAC	TCATAAATTC	TAAATGCTAT
144551	TGGAGTATGT	CAGCAAAGAT	TGCTTGGCAA	AGGTTGCAAA	TGTACATGTA
144601	ATATGTACGC	TTTAGATAGC	TATCTACACT	GTTTCAAAT	AAAGACGCGT

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144651	GTGTTCTCAC	TCAAAGCTTT	AAAGGGAAAT	AAGATACTCA	AAGAAATAAT
144701	CTCTTTTGAA	CTTTAAAAGC	TATTTGAGAC	TTCACGATGA	TACAAACTTA
144751	TCCCACATAA	AAATCTTAGG	ACATAAAATC	CATTACAACC	ATTCCAGCTG
144801	AGACATATAC	ACCATTGTTA	CGCTTTAATT	TACAAGGTCA	GGACAAGCTC
144851	TTGCTGCATT	CTGTGACAAA	AGGGCTCCTT	TGCACACCAA	AATCCATGCA
144901	CCCACTCCAA	GCACCTGATC	ACTGATCACC	ATTACCATCA	CTTCAGTCTC
144951	CGTGCTCCCA	TTCCCCATAC	TGTTTTGGCT	CTTGCCAATT	ACAGGATTGT
145001	TATGAAACTA	AATGTTAAGC	TGCCCTCCCA	CAGGATTCCA	ACATTCTCAG
145051	GTTTCAAAAC	CATTGTCTTC	CCCACCCCTC	TTATCTCCTG	AAGTCCTTAT
145101	AATGGTTTGG	ACATTTAAAG	TGCTTTCATG	TTTAAAACCT	ACTGGCCTGC
145151	TCTGGCTGAG	ACAAAAACAC	GAGCAGAATG	CTCTGTTGGC	TGAACCAGAA
145201	ACCATTCCCC	CCCAGATAAA	TAAACAGCAC	TTTTACTGGT	AAAAAAGAT
145251	ATTAGAAGAT	GCCAAAGAAA	TGGAGTAGCT	TTTCTTCAAG	CATAATTTTT
145301	TTCTTTTCAA	ATACCAAACA	CCTTAGGTTT	GAATTACATT	AGATTTTCAA
145351	GAATTACAAA	GGGTTCGTAG	TTAAAACAGC	ATACGTACAT	GAAAACCAGC
145401	CATGGCAAGT	TTACACAAAA	TACTGTGTGA	AAGCAGAAGC	TACCAAACCT
145451	TCCTCTCAAA	ACCCTCAAGT	ACATTTAGAT	CACTTTATAA	ATGATCTATG
145501	TAGACAGCAA	GTATTTAACC	TACTCCTGAT	CCCAGGTACC	AATGAACTGA
145551	GCAACATACT	GTGTAGGAAA	GTTGCACTGA	CTTGTGCTAA	GTTGCACGGA
145601	AACTGAAGGA	AAACAAAATG	TGCTTATATA	GCTGAGATCT	GGCCAGGGTG
145651	CCTGGTGTGC	TGCCAATATT	TGTCCTGCCA	AAATGGAAAC	ATGAATGACC
145701	ACAGTGAATG	AACTACAGGC	TTACTTCCCA	CAGGAAGGAT	ACTACCAATA
145751	CAAACATAAG	ACTTTGAGCA	TGTTGGAGTG	TTGACTTAGT	AGAGAGTGGG
145801	AGTGAGGGAA	CCGCTGCTCC	TGAGTCAGCC	TCAGCACCGC	CCATTGAACT
145851	CTGTACCTCC	TAGCCTTGGT	AACTTCACAG	GATGCTGGAA	AATATTATCA
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145951	TGTATGTATT	TTTTTTTCCA	CTAATAACCA	GCCATGCTAT	TCAAAAGGCA
146001	TTTTTTAAAAG	GCAACGTTAA	CACCCTGTAC	AAACACCATC	CTCTCATTCA
146051	TTCAAATCCC	ACATTTCTGC	ATATATGGAA	CATGTCAGTC	ACTTCTTGTA
146101	ACAGAGCAAG	TACTATGACT	AGTCAGCAAA	TTAAATTCAT	CCCTGCTTTA
146151	AAAACAGAAA	ATCCAAGTAA	CTGCTCCAAG	GGATGAAGTT	TATTTAGTGT
146201	ATCTATCATT	TGTTCTACAA	CACAGTTAAT	TTTGCAAAGA	TGACTCAAAT
146251	CATTTAAAGC	TTTGGAATC	ATTTAAGGCC	AATGTAAACA	GATTACAACT
146301	TTCCCAGGCG	CAATGGAAGC	AATTAATTCT	GCAGCACACC	TCTCCTACAC
146351	TACTATACTC	TGGAAAACGT	AACAGATGCA	TCTAATTATA	ACCCACACTG
146401	AAACATGCTG	TCTTTATGTA	GCTATGAATT	CAAAACAGCT	GAGGGGCAGG
146451	AAAGAACCAT	CCTCCTAAAG	CTATGTGGCT	GCTCACCTGT	AGGAAAAGCAA
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146551	ACTGGCAAGG	TGCTCCTTGT	GTGAGCAACC	TATTCTGCTC	TATAAAACAT
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146651	GCCACTTCTG	TACGAAATAA	GCCCACACGT	ACTTTCATAG	ACCTCAGGGC
146701	AGAAGAAAAG	TTTCAGAAAG	CAGTTTGTGC	TGAGGAGATA	GACCTTGGGG
146751	GTGAGTCTTT	CTCCATATTG	AGGCGGAATC	CCTCAAAGAC	AAGCAGCCCT
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146851	GAAATAAAGG	GCAGAGTTAC	ATAGGATTTT	TCAGTCAGAG	GTGAGAGCTG
146901	AGATGGACAG	GACAATGAGG	TAAGGACAGT	GTGACTGTGA	GGAGAATTAG
146951	CGATGGAAAT	GCTTCACTAG	CCAAGGCAAG	AAGAAAAAGA	GTATTCAATA
147001	GAATATCAAT	TTCTGGGGAA	AGAATTCATC	TCTGAAGGGC	TACATAGGGC
147051	AAATAGCTGC	TTTCAACTTA	GAACAGGGAA	ACTGAGGCAG	CAGCAAAAAA
147101	AAAAAAAAAA	GTCTAATCTG	AAACCCACAT	CAGGTTCTAC	TGTTGTTGCA
147151	GTGATAAGAA	AAGTGTCTGA	TGAGTGTTTC	TCAACCTTCG	TTATCTCACA
147201	GTGAAAACAT	TTCCCTGGTT	ATACAGTTTT	AGAATCCTCC	AATATTACCA
147251	AAAAATCATT	TTACTAAAAA	TGGAATCCCA	CAAGAAATGA	CTAATTTTTT
147301	ATCTGTAGGA	AACGGACAAT	AGAAAAACTC	ATAAATATGA	TGTCACTGTC
147351	CTTTCGCTGT	CTCTTCCTTG	GAAATTGTTT	CTATTAGAGG	AATCATAAGT
147401	AGGTCAGCTA	CTGCATTTTT	TTACCCTCCA	AATTGCAAAA	GAAATGTTGT
147451	TTCCAGCAGT	GATGGTTCAA	GTTGTAACTA	GCCTGTTGCC	ACAAAAATGT
147501	TTATAGAAAT	ATTTCTGCAG	TCAGTTTTGT	AAGGTTCTTG	TATGGTATCA
147551	CTCTCACCGT	CACTTCACAT	CCTACTCTGA	GATGATTCAG	TTCTTCCATA
147601	GGGATGTGGC	CTTCAGGGCA	AAATAAATTG	CAGAGTCATG	AGTCATAAGA
147651	ACCTTTGAAG	AACAGGCCAG	GCAGACTATA	AATTCAGCCT	ACCCATCATC

W gene exon L

147701	TGAACTGCAT	AAACCTTGGA	CAGACCCAGA	GCAGCAGTCT	TCCTCCCTGC
147751	ACAAAACAAG	GTACTGTAAT	TATTTCTAGA	GATTATTTAT	TTCACCTACT
147801	CTTGGATGAT	GTCGATCTGT	TGACAAATGC	ATAGAAAAAA	AAGGCAGAAG
147851	GAATCTGAAT	AGAAAACAAT	AAATACTTGA	GGAAGAAATT	TACTAAGATG
147901	GCACAGGCAA	GGTCTAGAAG	GGGTAAAGTCT	CAGAAATATG	CAGGAAGAGT
147951	GGTTTATTCT	ATGTAGTTCT	CACTGGCAAA	CATGTATATC	ATAGCAGAGT
148001	AAGAACCATT	GTGTTTGCTT	AAGTTAGATC	ATTTGTTTAT	GTGCTCTTCA
148051	ATTCTTGTGT	ACGTCAAGAC	ACAGTCAGTA	CATCTTTATT	TTATGGCTAT
148101	TCTGTATCAA	CCAGAATAGC	TCCCACTACA	TACCTAGGGC	TCTCAGCTTC
148151	AACTGCAATG	CAAATAACAA	AGAGCAGCAC	CTGTGTTCTA	CCAATAAGGA
148201	AATTTGTCTT	GCAGAACTGG	GAAGCTATGA	TTCGGACTAG	CACCATAAGA
148251	CAGAGTTTCC	AGAAATTTTT	GAAAGTTAAA	AATGGAATTC	AGGATACTTA
148301	GCACACAGTA	GTTAGAGAGC	TGCTTGTCTA	GTGCTTCAAT	ATTTTCTTGT
148351	ATCCTAAAGG	AATGGAATAT	TTGTTCACTA	CAGTTACGAG	CTCCAAAAGG
148401	CTCTTGCAAC	AGTAGTCATA	AGAAACAATC	TCTCAGCATC	TTCTAGCCCT
148451	CGCACCAGTG	AGTAGCATTA	TCATATGTCA	CTCCAAGATG	CTGTAAAGGA
148501	CAGTGCAATA	AACGTCCTGA	TGAACAAATA	CAAAATGAAA	TATGAGGCTG
148551	CTTTTTCTAT	ATCACTTGAG	TATGGTTAGT	GTTGTTGGTG	AAACGGGATG
148601	CACTATACTT	AATATAACTT	TTTAGTAGCT	AATCTTCCTC	ATTTTCCATA
148651	AAGATATCTC	TCTTCTTTCC	ATCTGTAAAGT	TCCTTACCAT	ATCATTATAT
148701	TGCTTACATA	GAATTCACCA	TATAGTTATA	AATTGCATGC	TTTTTCTTTT
148751	TAGTATAACA	CTGTAACCAT	CCTGTTTCGA	TGAATTTTCT	TTTGTTCCTC
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148851	ACCAAGGAGA	GTTCAATTCAT	GCACTACAAA	CAGACGTAGT	TGGCAGAAAT
148901	GAATATTGTA	CCAGTACTGA	CAGGTCAGAA	TGCTTTCATT	CAGTTTCCTG
148951	AGGTCAGAGG	AGAGCTGAAG	AAAATACCTG	GCACAGTCTA	GATTTTGCCT
149001	TTGAACATAC	ACTGCCAGTG	AGCCTCAGTC	ATACAAAGGA	TCACTGTGCT
149051	GCACTGGCAT	TCTTCCACAG	TCAATAAGTG	TTAAAAATAC	TTTGTAGAAAG
149101	CCTACAAATC	ATAAAATAAA	TTCAAAATAC	TGAAAGGGAG	CCTGCAGACA
149151	TATAGCAAAC	ACAATTAATT	CTTAGCTAAT	AACATCTTTT	GTCCCTTTCT

W gene exon 1

149201 GCGCAGGTTT AGAACAATGG AAGCTTTAAA TAAAGCAAAC ACAAGCTTTG
 149251 CTCTTGACTT TTTCAAACAT GAGTGTCAGG AAGATGACAA CAAGAACATT
 149301 TTGTTCTCCC CTCTCAGTAT TTCATCTGCC CTGGCTACTG TGTATCTGGG
 149351 AGCCAAAGGC AACACTGCAG ATCAGATGGC AAAGGTGAGT CTGAGAAGAG
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 150601 AGAACAGATG AGCGCCTATC AAATCACCGT GCCTGTTTCC AGAAGGTATA

CR1-d

150651 TAACCAAGTC TAATGATCAT AGAATCATAG AATGGCCTGG GTTGAAAAGG
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 150751 ACCACTAGAC CAGGCTGTCC AGAGCCACAT CCAGCCTGGC CTGAATGCC

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151751 CCTGTGGCAG CAAGTTTTGA TAAATGGGAA CTTGGGTCTA CATTCCACAG
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152451 TTGCATTGCA GTAAAGGCAA CACCACCTGA ATAGCAGTAG TTTACATAGA
152501 GCTGCATGAG GAAAGAATTT AGAAATTTTG AACTGTTTTA CAGAAAAAAA

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W gene exon 2

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152551 AAAAATGTAT AACCCTTATT TCCTTGTCTC CAAGACAGAA ATAGGCCAAAT
152601 CAGGTAATAT CCATGCTGGG TTTAAAGCAC TCAACTTGGA AATCAACCAA
152651 CCCACTAAAA GTTACTTGCT TAGAAGCGTC AACCAGTTAT ATGGAGAAAA
152701 GTCACTGCCT TTCAGTAAGG TAGGTAGGCC ATTTATTCAT GTTATCCTGT
152751 GTGTGTCAGA CTTTATGATC TATCTATGAC AACAAACCAT AAATTATATG
152801 CTTTCAAATA TTTTCATTAC ATCTGCAAAT TGTGTAATTA TCTTTAACAT
152851 ACTTCCTGTG AGGTTCTTCT TGAGAATTTA GATATCATGA CTTTTATAGG
152901 ATGTATATTT AATTTGTGTG ATTCACAGTT GTGGCTACGC AAAAACATTT
152951 AAATTATGTA TTTCCAAATA AAATCAATAC TATGTTCTTT TGACAAATGCT
153001 GTGCTTGTAG CCTACACAAT TTTTATGCAT TCTCTCCAAT CGGCTATAGT
153051 TATTTATTGG CATTCACACT GGCAGGCAAC AAACATAAGA CAGATGTCTA

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W gene exon 3

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153101 TCTTGCACTG CAGGAATACT TACAGTTAAC CAAGAAATAC TACAGTGCAG
153151 AACCACAATC AGTTGACTTT GTGGGAGCAG CAAATGCAAT CAGAAGAGAG
153201 ATCAATTCCA CGGTTGAACA CCAGACTGAA GGTAAGCTCT AGCATCTCCT
153251 CTCCCAGTTC TGAAGGAAGC AGTTTTAGTC TTGAACAATT TCTCTGTGCC
153301 CAAAGGCAGG TAAACAATTT AACTCAGAAA GGAAAATCAG AACAGTTTTG
153351 CTGAAGTAAT CATCTGCTGG CAAGCCCTTT CTAGAATTAT CTTTCACCAT
153401 TTGAAGGGA GAGGAATGTG GTTTCCTCTA TAAATCAAGG TTGTCATGTA
153451 TTTATGAATA ATCTCAAGCT AGAAGTATGC CAAATCAGCA CTCTAAATTT
153501 CCTTGTCTTA TGACTTCAGA AACTACGCCA GCATTTACTC TGAAACAGTA
153551 AAGCTGCACA AATATGTAAA CGTTCCTTGT TTTTCTCTAG GTAAAAATAA

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W gene exon 4

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153601 AAGTCTGCTG CCTCCTGGAT CCATAGATTG ACTCACCAGG CTAGTCCTGG
153651 TAAATGCGCT CTATTTCAAA GGAAACTGGG CAACAAAGTT TGATGCTGAA
153701 GATACCAGGC AAAGGCCTTT CAGAATAAAT ACGGTATGGT AACATACTGC
153751 CTTATATACC AGACTGCAGG TTGAAAAAGC AGTGAAAAAG ATGGAGGAGA
153801 TAAATTCCTG TCATTCTTTA AAGCCACATA GCACTAAAAT TAGTATATTT
153851 AAAACATACG TTATATCCTT CTTAGCACAT CTTCAGTACA AAGACCGCAT
153901 ACATATGCTA GCACCCAAGG CACAAATAAA ATTATCAGAA GCCAGCTTGA
153951 AACAACTTC CATAACCTC TTAAAGCAGG AAAAACATAG ATGTGAATAG
154001 AACTGTATGA ACTAGTTCTA TATATTTTCA TTTTAAACCA TACAATGAAT
154051 TGGAGTGGAA CAGAGCTTCC AGTAAATACG TGTCATCCTA GCTGGCTAAG
154101 ATAACCTTCC CAGCCTCCCA GTGCATTCCC AGAAGAGAGG GGCCCTCTGT
154151 AGATCCTACA GCTTCTCTTA GAGCCACAGG GATGTACCTC CATGCTACTT
154201 CAATGTAGTC TTTACTGTTC TGAGTATAAA TAGCAAGCTT TTCATTTGAT

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W gene exon 5

154251	TTGTTGCAGC	ATACAACATA	ACCAGTGCCA	ATAATGCACC	TGAGTGATAA
154301	ATTTAATTGG	ACCTACATAG	AATCAGCCCA	GATTGATGTT	CTTGAGCTTC
154351	CATATGTCAA	TAATGAACTC	AGTATGTTCA	TCCTGCTACC	ACGGGATATC
154401	ACTGGCCTAC	AAAAGGTAAA	GGGTAACTTT	AAACTCAAAT	TGCGTGAGAA
154451	ACAACGTTTT	CATGCATATC	CATGGCAAAG	CAATCCTGTT	TCTAGGAAGG
154501	AAGGTATCGA	TAAGGCTAAA	GGAAAAACAA	ACCCCAAAC	TGCCCAAATG
154551	TTATGAAGCT	GAACCTTTTC	AATGTTTTGT	TTGGTTTTCT	TTTTAACTCC
154601	TGGCACGTGG	CACCTCGTGC	TTCTCATGT	TGATCAGTGC	TGGAAATAAG
154651	TAGCCCGAAT	CCAACAAGAT	AGATCTAATT	CCAGCTGAAG	AACAACGAGG
154701	ACAGAAAGAT	AGTTCCTGCTG	ACTGTCTGTA	CTGATTCCGA	CAGATATTAT
154751	TACATTAATA	AGAAAAGCAC	AACTGGACA	CCCTCCACTA	CTTTCTGTGA
154801	TGTTTAGAGC	TAATATACAT	GTACACTGCC	ACCTTCTGTA	AACACACTGA
154851	ACCTGACTTC	AGATAGTGAA	CTACTGTGAA	ATTCTCATTT	ACATTAGTGG
154901	GTGTTTTGTA	GAAAAAATA	AAAAAAGTTA	TTTTCACTAA	ATTCTAAGAC
154951	ACACAGAAAA	CAGAAATGTG	AGCAGCAAGT	CAAATAGACT	ATTGTTACTT
155001	GACAGTGACG	TTGTTTTACA	AATATTTAAT	CCCTCTATAT	TCCCTGATGA
155051	TTACTAAGAA	CAGTTCAAAT	ACTGCACTAA	CATGCTGTAG	AGCAAAACAC
155101	TCCTTCCTAG	TAGAAAATAT	TTCAGAGTTG	GCATTTCACT	AATGGTTTTCT
155151	GTACTTGAAA	AGTACAATTT	TTTTTGCTAC	AAAAAAAGC	TACAGAATTT
155201	TTGTAGTTTG	AAAAGTTCTT	AAATAAGAA	ATAAAAGAAA	TAACCCCTAG
155251	GGAACAGTTT	TTTGAACACT	CTGTAATTTT	CTGGTTCTCT	TTTCAATTAA

W gene exon 6

155301	CTGCAGCTAA	TAAATGAATT	GACTTTCGAA	AAATTGTCTG	CATGGACCAG
155351	TCCAGAATTA	ATGGAGAAAA	TGAAAATGGA	AGTGTATCTG	CCCAGGTTCA
155401	CAGTAGAAGA	GAAATACGAC	CTGAAATCTA	CTTTGAGCAA	GATGGGAATA
155451	GAAGACGCTT	TCACTGAAGG	TCAAGCTGAT	TTCAGGGGAA	TGTCAGAGAA
155501	CGCTGACCTG	TTTTTGTCAC	AGGTTTTTCA	CAAGTGTTAT	GTGGAAGTCA
155551	ATGAAGAAGG	CACAGAGGCA	GCGGCTGCCA	GTTCAGCATC	TCTAGCGTCA
155601	CGAACCCCTT	GTGCTACAGT	TATTTTTGTA	GCAGATCACC	CTTTTCTCTT
155651	CATTATCAGA	CACAACAAGA	CCAAGTGCAT	CCTTTTCTTG	GGAAGGTTCT
155701	GCTCCCCCTA	GAAAATCAGC	TATTAATAAA	CAAGCCCTTA	CAACAACGAT
155751	GAACACAATG	TATGCCATGA	AGAACACCTT	GACAGACTTT	GCACTTTTACC
155801	ATTTTCCTGT	ACTATTGACA	ATCTCTTTTA	GAAGAGAGCT	CAAAATTAATA
155851	ACATGAATTC	AAACCTCTGA	TTCTTTTCC	TCTGCAAAGA	ATCCTAGCAT
155901	CGTATACTGC	ACTGTAGAAC	ACTGAACTGC	ACGCTGAACA	ACATGGATGT
155951	GTCTTTTCAG	TGCTGTCCAA	ACCAGAACTG	CTACAATGCA	GAACAGACTA
156001	GGCTGATCTA	AACAGTACCT	TCTGACCCAG	TTCTTTTCAC	ACGTAAGAAG
156051	AAAAGAAACA	GGAGAACTC	ATTCCTGCAT	ACAGCTGTTT	CATCTCTTCA
156101	AAGCCAGCTG	TCCCAGGCCA	GCTCAATCAC	AGCCTTGTC	GTTTTAAATC
156151	AGCTTCACAA	CATAGCATGG	CTGGTAATGA	AACAAAAGTG	CAAAATCCTC
156201	TGTGTTGCTG	ATACTGGTGG	TTTGCTCTTG	CACACAAAGG	AGCTAACACA
156251	TGTACTTTCT	AATCTCTGTC	CCTCATAAAC	TAGCAAATAC	CAACAATAC
156301	AGAACCAGAG	TAAAGTAAAA	TACATACCTT	GAAATGCTTT	CTTTTGTCAT
156351	AACCTTTAAT	TCATTCAACG	CTGTTGCAGC	CCAGCACTGC	ACTGCTTTAC
156401	TTGCCTTTTA	CTTTGCCACA	TATTTTGCTG	CTTGGAGCAA	GTGGGAGAAT
156451	AAAGTCTGTT	ATGTTAACTC	CCTAAGTGCT	GTCTAAAAGA	TTACATGCAA
156501	ATTCTCCTCT	ACATATTCAC	TGCTTTTACA	GCTTTTACTC	CTAAAGGGGA
156551	GGAATTCCTA	ATCAGTCATG	CACATCTAAG	AACACAGGTG	ATGCTCCTGT
156601	TTCTCTGAAT	TCAGAACAGG	GAGGAAAGGA	CTGGGTCTCT	TAACAGCACT

MAR-like element

156651	TGCACACACA	CTGACAGCAT	CTCACTAGAA	ACATCCCTTC	CCAGAAAGGT
156701	AGGATACCTT	TTTCTTGGCA	GAGGGAAGAG	CGCTGACTGA	TAGTGAGTCC
156751	TTTCTGTATT	ATTCCACGTG	ACCAACTGTG	GCCAGGCTCC	CTTTTGGCTC

156801	TGCTTCCCAA	ATGGGAAGGA	ACGTAGGGAA	GGGCCAATGG	CAACCAAATT
156851	AGAGGGTGAG	TCTTGCATTG	AGGAACACCA	TTTTCCCACC	GTAAGTAGCA
156901	CAGCACTGGG	GCAGACTGCC	CAGAAAAAAA	TTGAGGATTT	CCCATTCTTC
156951	AAAGGGCTGT	AGCTGACCTA	ATTTACCACT	GGGTCTGCTC	CAGGCATGAG
157001	CTGGACTATG	GAAATACCCA	TAAACCAGCT	TGTGTCTTGT	TTCTATCAAC
157051	ATCCATTCTA	CCTTACCACC	TCAATTTCTC	ATCCTCTCTG	GCACCCTTAC

MAR-like element

157101	AGCTTGACAA	GCAGGGGCAG	TTAGCTTGCT	TGCTTGCTCT	CAAGCATATT
157151	TCTTTGAGAC	TTGGAATCTC	CCTAGCTTGT	ACTTTCCCAT	CAATCAATCA
157201	CTCAGTGGAC	CTTTCTTCTA	CCCTGATTTT	TTGACAACTC	CTCTCATTGT
157251	ACTAAAGTCA	CCACTTGTTT	AGTTTCTGGC	ATTTCTTCAT	TGCCTTGCAT
157301	AATACTGATT	TCTATAACTT	TTCAGAAGAC	TTGACCCGCT	CTGTTCTTGT
157351	AATCAAGCTT	ACAGCAAAAT	GCTTGGCACA	CCATACAGTT	TCCTTCCCTT
157401	CCTCCTCCTT	CCTTCCCTGT	CCCCTAGACT	CTTACAGATA	TGCCACTAC
157451	CTTCCCCTTC	TCTTACCACC	AAAGAGCTGC	TCTGCTGTCT	TCTGGGACAG
157501	CAGAGTGACA	ACTATTGTGA	CATATTTATC	CCTGTTGTAT	TGTTTTCACT
157551	CCCTCCTTGC	TCAAGCTCTG	CCAGTGGGGC	CGTTTCAGTT	CTTGCCCACC
157601	TCCATGGCAT	GCAAGTACTG	CACACTAACT	CAGTACTCTG	CAGTGCTTCT
157651	CTGAAGCGTT	TCCCAGCCAT	GGATGCAATG	AGATTCTTTC	ACCAACACAA
157701	GAAGCAAGGT	ATTCAACCTT	ACACCTTCAA	TGGCTTTGCC	TCTGCCTATG
157751	CTCCTAATGA	TCTTCACTCT	GAAGCTTGAC	TCTCAGAGTC	TCATTTCAGTC
157801	AGTAAGCTCC	TGACATTTTA	TGCTGATGCA	TCTTACTCAT	AGAATCATAG
157851	AATGGCTTGG	GTTAGAAGAT	CATCTAGTCC	CAAGCCTCCT	GCCAACCACT
157901	AAATCAGGCA	CTACATCAGG	CTGCCCAGGG	CCCCATCCAG	CCTGGCCTCG
157951	AACATCTCCA	GATCTCCAGG	GATGGGGCAT	CCACAGCTTC	TCTGGGGAGA
158001	GGTTCCAGCA	CTTCACCACC	TTCTCAGTGA	AAACTTTCCT	CAACATCTAA
158051	TCTAACTCTA	CCTTATTTTA	GTTTTAAAC	ATTCCCCCTT	AACCTATCAC
158101	TACCTTCCCA	TGTGAAAAGT	TGATTTCCCT	CCTTACTTAC	AAGCTTCTTC
158151	TAGGTACTTG	AAGGCTGCTA	TCAGGTCTCC	CCTGATCCTT	CACTTCTTCA
158201	GACTGAGCAA	GCCAAGCTTC	CTCAGCCGAT	CTTCAGAGAA	GAGGTCTTCC
158251	AGTTCTCTAA	CCATCTTCAT	GGCCCTGCTC	TGGACTTGTT	CCAAAGGTCC
158301	ACATCTTTCC	TGTGCTGGGT	GCCTCAGACC	TGGACACAGT	ACTCCAGATG
158351	GGGCCTCATT	TGGGCAGAAC	AGAGGGGGGA	CAATCACCTC	CCTCTCCCTG
158401	CTGGTCACCC	TTCTTTTGAT	GCAGCCCGGG	ATATTGTTGG	CCTTTCAGGC
158451	TTCAAGAGCA	CGCTGCTGGC	TCATGTTAAG	TTCTTCATCT	GCCAGGATCC
158501	CTAAGTCCTT	CTCAGTAGGG	CTACTCTCGA	TGAATTCTTA	TCCTAGTATG
158551	GATACATATC	TGGGATTGTC	TCAACACAAG	TGCAACACCT	AGCACTTGGC
158601	CTTGTTGAAC	CTCATTATGT	TCACATGGAC	CCAATCCTCA	AGCCTGCCCA
158651	GGTCGCTATT	AAAAAAAACA	AGTGTCATGG	CTTCACAAGG	CTGGAAAGTT
158701	GGATCAGGCC	TACAATACCT	GCTAACATCC	AGAAACCAAA	ACCATGCATT
158751	CTGGCTCTGT	AATCATTTTA	CTAGATTTAT	TTAGTTTAAA	CAACAGGCCA
158801	GTTGTCTTCA	CAACAACAGA	AGATCACTGA	AATGAGTGAG	TGACTTGTTT
158851	TACTGTCTCT	TCAGTAGACA	ATTGTGGTGT	AACAGTTAAA	ATGAGATTAT
158901	GATCCACATT	GTTCCCTTGA	AACGCCTAAA	ACTAAAACAT	AACATGATGA
158951	ACAAGGAAGA	CAAAACTGTA	TGAGATCTTT	TTGTGATTCA	TTAGAAGCTT
159001	TGAGTAGGCG	GGAACAGTGT	TGACATAGGA	GAGAAGGAAA	AGGAAGTGCA
159051	AACTGTACTA	TATTTCTAAA	TTTATTCACT	GCATAACACA	CAGGCACAGA

MENT exon L

159101	ACCTGACTGA	GGACAAGACT	CAGGTCTTCT	CTCTCACGGG	ACCACAGGTA
159151	AACATTTAAA	CCAATTTAAA	TAACCTTTTT	GATGTTTTTA	AATGGTTATC
159201	TATAGTCTGT	ATGACAATGT	AAGTATATTA	AAACACACCA	GAGTTATTCT
159251	GTAGTCGGGA	GCATAATTGA	TCACAAGAAG	GAAAATCTTG	TCAGGACAGT
159301	AGCTGTCTTA	CTAATTTAAA	TGTTTCAGTTT	GATAAAGGAG	TCTCATACTT
159351	CAGGTAAAGC	AAAGGCCATT	TTCATTCTGC	CTTGTATGAG	GTCAGGCCAG

159401 GGA CTCAGAG GAGCAGAGTA AAACAGACAG ATTTCTATCC TGATGCTCAT
 159451 TTGGTCAGGT TCTCCAAGGA GAGGAAGTCA CTCTGTTGGT ACAGATTTGG
 159501 TG TAGACTGG ATAACGACTG CCAGAAAAAC TGAAGTGGTT TGGTAACCAA
 159551 AATCTTGATA AATATCTGTG GACTTCAGAG ATTGTCCTGC AATTTCTGCA
 159601 GTGCCATTCA ATAAATATAA ATCTTTCTTT ACATAATAAT AACTACTACA
 159651 ACAACAACAT TTTCCAGTCC CTCTATCAGA AAACAACATC AAGAAGGCAC
 159701 TACTGAACAG GTAAGTTAAA GTTTGGAATG CTCATAGCTT ATATGCATAG
 159751 GTATTTGCCA GTTCTG GGG AAAATAAAAT TGCAAGAATA TAAAGAAGAG
 159801 ATTGTAGTTA GACTTCGTGA ATAAAATGGT AACACTCTAA AAGCAAATAA
 159851 CAACTTTGCC ATACATTATA TTATCTGAAA TGGGTGACTA GCCAGAAAAA
 159901 TTCCATAAGC CTAAGAGTTA CACCTAAATA CATTCTCAGT ATCAGCTCCT
 159951 AATTCTATCT AGATCCAAAA TGAGGTAGTG AAAAGTTCAA ATGTCCCATG
 160001 TACAAAAAAC TACTTAACT TCCCTAGGAA CATTACTTTG ATAATGAGTT
 160051 AAGAAAGAAA ATGAACAAAA TATGCAGCTT ACAAATCCAC ACACTTTTGA
 160101 AAACCAAAGG CAGAAAGAAA CACAAATAAA AGGGCAGATC TATAAAAGAG
 160151 GACATATCTA TAATCATAGA GAAATATGAG ATGGATAACA AAAACCTAAA
 160201 AGAAACTGCT GCTCCCAGCA GGTGGCACAT GGTATGTGTA GAACATATAA
 160251 CGTACAAC TA GCTATTAGT TTCAAAAGGT ACCTACGTGC TCCGTTGCAA
 160301 ATGTAACATG TAAATGTAAA ATGTAAATGC AAATGTAAC TATATGCACT
 160351 ACATACATCA TTTTAGACAC TCAATACTA CAATTCTGTC TGTTCCTCT

MENT exon 1

160401 TTCCAGGCTG TAGCAATGGA ACAGGTCTCG GCATCAATTG GCAACTTTAC
 160451 AGTTGATCTT TTCAACAAGC TGAATGAGAC CAACAGGGAC AAAACATTT
 160501 TCTTTTCCCC TTGGAGCATA TCATCTGCTC TCGCCCTGAC ATATCTGGCT
 160551 GCAAAAGGCA GTACAGCAAG AGAGATGGCA GAGGTAAAGTA GCTCTGTGAA
 160601 GCTATGATGC TCAACACTGC CCAGCACTGC TGTGAGATG CCTGCTCCG
 160651 TTGTCATAGG GAAAAACTAC ATTTGAGTTT GCACAAATGC ATTGCTATTG
 160701 CTGAGTGCAA TGGCTGTGGA AGGGATTTCA GCCTTGAGT GCACAGACAG
 160751 AAGCACTGTG ATGATGCTCA CAGGCAGGAG CAATACTATT CCTTGTTACT
 160801 GTAGGGGATT TACATATACT AGAGCTCCAG TGTCCCTCTG ATTAGATCAG
 160851 AAGATAGCAC AGTGTGTTAT CATAAGGATC CAAACAAGAC AACCATTTTA
 160901 TCTCTTTTAG GTTTTAGGTC ATGCAAACTC TTTTCATGTCA GTTCTTACC

MENT exon 2

160951 TTTGGAAACC CTGTTTGCAG GTTCTTCATT TCACTGAAGC TGTGCGAGCT
 161001 GAAAGCTCTT CTGTGGCCAG ACCTTCTCGG GGGAGACCAA AAAGAAGAAG
 161051 AATGGTATCT ATTAAACATG AAATCCCAAG ATAAGAGTTC AAATGTCTGG
 161101 ATATAGTTTT TAAGAGTCCA CCATTTCTTG TTTGCAGCTC TCTTTATGTT
 161151 TAAAGTATAA AACCCAATAT ACTTCGCATC ACATCCAATT TCAGTTCCCT
 161201 TCACTCATTC AGACTCAAAA GTATAGAAGC ACAAGTCACT GGTATAATCT
 161251 GAAAGGATTG CAATATGGTA AATCAGTTAA TCAAATCATA AAAGGAGCCC
 161301 TGCAAACTGC AGTGGTGGTG AATTTGGAAA GATAAAAAGT AAGAGAGAGG
 161351 AACAGAAATT CTTCCCCCAC ATCTACCCCT TAGCGTTTCA AAAACTTCAT
 161401 GCCAAAAATG CAACTGGTAA ATGTACAGTT TCTCTTTCCA AGGACCCTGA

MENT exon 3

161451 GCATGAGCAA GCTGAAAACA TCCACTCTGG ATTCAAAGAG CTCCTGACAG
 161501 CCTTCAACAA ACCCAGAAAC AACTACTCGC TGAGAAGTGC CAACCGTATC
 161551 TATGTGAAA AAACCTACGC ATTGCTGCCT GTAAGTTGAA TGGTTTTATG
 161601 TCAAAGAAGA AAAAGAAAAA AAAAGAAAAA AAAAGAAAAA AAAAAAGAA
 161651 AAAAAAGTTT TGCATTGTAT TCATTACCA TTAATAGAAC AGATCTGAAG
 161701 CTGTCCATAA ATGCTGCAAA TCACTGAGTCT TGGCTTCCAG TGATAAACTT
 161751 CATTGGAAAA TACAATTGG TCTTCTCCCA GTATATAAGA ATGCACTTGG
 161801 CTGTAATGCA GGACTCCTTT TCATGTAATA CAGCTTTATC ACTAGGAACC
 161851 TCAGTACATA CAATTGAAAA TGAGATATTA AAATACACAT ATCCAGGGGA
 161901 TTTGCACAGT CTTCTTCCT TCTCCAAATA AAAATGGGAA CGAGAGAATA

161951 AGAGTATTTT CTTTGGTTAT TTCCTAACCA TTAATCACT GCTCAATAGA
 162001 GAGCAAAATG CTAGATCCTG CAATTGCCTG TGTGCAAAAA GTTAACAAGA
 162051 AGTCCAGTAG CTAACAAATT ACTTTTGGGA CTATAAAAAAT ACTGTACAAT
 162101 ACAGAATGTT TCCTTCTTTC GTTCTTTTGG TATGCCATTT TCCAGACATA

MENT exon 4

162151 TCTACAGCTC AGTAAGAAAT ACTATAAGGC AGAGCCACAG AAGGTTAACT
 162201 TTAAGACAGC ACCGGAACAA TCCAGAAAGG AAATCAACAC CTGGGTGGAA
 162251 AAACAAACCG AGAGTAAGTT GAGCTCAACT CCAACATCCT TCCTCTTCCC
 162301 ACTGTTCCCT TCGGGACCCT GTTCCCCTC CTGTGACTGT GGCATCCAGG
 162351 TCATGCCCTC TGGTGTGGGC AGTAGATGGC TGTCTGCTTC CAGCTGCTTG
 162401 CCTTGAGACT GTGGCGTTTT TTCAGGCAGG AGCCAATTGC TGTCAGCTAG
 162451 CCAGGAGAAC TGGGCAACAA ACAGCAAACA GACTAACTGG TTTATGTCAG
 162501 GGAAGTAATC CAGGGAGTAG GGCCTGAGG CTTGCACTTT TCTACTAAGG
 162551 AGTTGAACTG AGTGGATAAA GAATCAACAC ATTCCTTCAC TGTGTTACAC

MENT exon 5

162601 TGGAGTAAAG CCTGACTTTT CTGATTTCAA AAGGTAAAAT AAAGAATTTG
 162651 CTGAGTTTCG ATGATGTGAA AGCCACCACT AGGTTGATCT TGGTCAATGC
 162701 CATTTACTTC AAGGCAGAAT GGGAAAGTAA ATTTCAAGCA GAAAAACAT
 162751 CTATACAACC CTTCCGACTG AGCAAGGTAA GCTCCTCTGG TGTCCTCCTT
 162801 AAAACAAGCA GACTGGAGAC TGCACCCACT ACCATCTTTT ATTTTCATCCA
 162851 TCCTTTAGGC ATTCCTTGGT AAACAGACTC TCTGAAAAGT TGTTTACAGC
 162901 AAAACATGTC AGTTGTCAGC TCACCAACAT TTATGGAACA TTAAGATGCT
 162951 GCTCAGGCAA AGGATAACTA GATCCAGATG GAACACAGTT TCCAAAAATG
 163001 CTAGGGTCAA TTAAAGCCTT TTTGCAAGAC TGAGGTATAA GAGCTACATT
 163051 GTAAAAATCA GATATTAAGA GTCCATCCTT CCTGCACAGG AACTACATGC
 163101 TATGCTATGG ACGAGTGCAG TACCCGCGCC TCTGTGCTGC ACAATCCGGC
 163151 TGTGAATACA GCTGCTAAAG TATGGATGCA GCAGCACAGC TCCACTGGAT
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 163251 CAAAAAGGCT GCACAACATT TATCCTCTCA CACCATAGCT GTTTCATTGC
 163301 TGTAATGTTG GGTGCCTGTA TGCCATGAAT GCTCCATCCC CCTAATTCTT
 163351 GAAGATATTT CTGACTCCCT TCCTCTCTCC TCTGTGGGTT GATGTGCATG
 163401 TTCTGGGGAA AAGAGAACAT CAGTTAGCTC AGTCCCAGC AAAATACTCT
 163451 GGGAAAAGAG CCAAGATCAG CAATATTGTC CAGTCAAGAA AAGCCTTGGA
 163501 AAAAGAATGT CAAATCTCTG TTACAAAAGC TGCTTATGAA AGTTTCCTCT
 163551 TTACAAGGAA TTCCTTTTTT CAAGGAATAA TTTTAACCGA TAAATAAATA

MENT exon 6

163601 CCTTACAGAA CAAGTCCAAG CCCGTGAAGA TGATGTATAT GAGAGATACA
 163651 TTTCCAGTTC TTATCATGGA AAAAATGAAC TTCAAATGA TTGAGCTTCC

MAR

163701 ATACGTGAAA CGTGAACCTCA GTATGTTTCAT CCTACTTCCT GACGACATCA
 163751 AAGATGGTAC TACGGGTCTT GAGCAGGTAA AAAGTTCTGC TACATCCATT
 163801 CTGTATCGCC ACTCAGTCAT CAGAAACAAAA AGGACAGGCT GATGACCATA
 163851 CGGCCCTTTC TTTCTTTGGC AGTTCATTCTG GCAGAAGTAG CGCACAAAAA
 163901 CTTGACGAT TATGTCTCAC ATTTGCTTTG CAGCCTGTTC TCTGGTCATC
 163951 AGTAAAAGCA ATTTATATTT CATATTTTCA GCTGAATGTT AAATACGCCA
 164001 TTTAAAAATC TGTTTAAATC ATTAACAAAAA AAAAGACAAT CATAATTAAT
 164051 TGGTTTATCC TTGCAATTAT CAAATTCCTC TCATTTCTTA AACAAACAGCT

MENT exon 7

164101 GGAAAGAGAA CTCACCTACG AGAGGCTGTC AGAATGGGCT GATTCAAAGA
 164151 TGATGACAGA AACTCTTGTC GATCTGCACC TGCCTAAGTT CTCACTGGAG
 164201 GACAGAATTG ACCTCCGTGA TACTCTGAGA AACATGGGAA TGACAACTGC
 164251 CTTACAACC AATGCTGATT TCAGGGGAT GACTGATAAG AAGGATTTGG
 164301 CTATTTCCAA AGTCATTAC CAGTCTTTTG TTGCAGTTGA TGAGAAAGGC
 164351 ACTGAGGCAG CTGCTGCTAC AGCTGTAATT ATATCATTCA CAACTTCAGT

164401	TATCAATCAT	GTTCTGAAAT	TTAAGGTTGA	TCACCCTTTC	CACTTCTTCA
164451	TCAGACATAA	CAAATCCAAA	ACAATCCTGT	TTTTTGGCAG	ATTCTGCTGC
164501	CCAGTAGAAT	AAATTATTCC	TCACTCCTAG	AGGGATCCAA	AGTTCACTTT
164551	TCAAAGGAAA	AAATGTGAAC	TGTAGTATTA	AAAGCTCAGC	CTTCAATCAT
164601	ATAGCCATAA	GTA CTGGAAG	TCTATGTCTT	TTTCCTTAAG	TAAGGCAGCA
164651	CCCAGACACC	ACCACGCGCC	TCGAAGACTG	TCTCTCTACT	GCTCCTTTCC
164701	ATTATGCTCA	TGAAATTGCC	TTTTATAGAA	AGCAAATGCT	TGAGGTACAA
164751	TTGCTAGCCT	CTGTTACACT	TGCGTTTTGT	CCTTATTTCT	CTAAACTCTC
164801	AAGACTGAGG	TTGATAAGTA	TCCCAACCAG	CAAAAAAGAC	CAAGAAAACCT
164851	ACAACAATGT	GCCTTATTGC	TACCTCTTAC	TGAAATGTGA	CCTAAACAAT
164901	TCAAATCTGC	TTCCCGTTTT	CATTAACATA	ATTATATGTT	TCCTGGCTAA
164951	CATCTGCACG	GTCTCCTTGC	TACCTGGATC	ATTGATAAGT	GTATGATTTG
165001	TAACCTACGA	GTGCCCTTCA	GCTAAGATAG	TCCCGGTATT	GACAGAAACA
165051	CCAGTAACAT	TTTTATGGAT	GCTTCACTTC	ATTATTTTGC	CATGATCTAC
165101	ATTTAAACAA	TAAATGAATT	TGGAACGTG	TTTATGCTAT	GCAAGATTCT
165151	GACTCACGTA	GCTCTTTTAC	AGCATCCTGT	ATAATGGGTG	GCTGACACAT
165201	ATTTCCATTC	TTGTTATTTT	AAACCAACCA	TCACATCACC	GCTAACGACA
165251	AAGTGCTGAG	GCACTCTAAT	AAACCAGGGT	CTTACTCCCA	CTAGATTTCA
165301	TACAACACTG	AAAACACTGT	CGTTCAACGT	GTTATCGTAG	ACATATACTA
165351	GACACACCAA	TTCAAATCAA	AGCCTGTGAT	AACAGAGTTA	AGGCATTTGC
165401	CCAGTCTTGT	TCAACAGCTT	CACCAATAGT	CTAGATAAAG	GGATAGAGTG
165451	AATCCTCAAC	AAGTTTGCTG	ACAATATGAA	GCTGGGAGGA	GTGGTTGATA
165501	CACCAGAAGG	CTGTGCTGCC	ACTCACTGAG	ACCCAGACAG	GTTGTAGAGT
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165651	TGCTGGAAAA	AAACCTCTGA	AGAGAATAAG	CTGGGTGTCT	TGGTAGACAA
165701	CAGATTGGCC	ATGAGCCAAC	AGTGTGCCCA	TGTGGCCCAG	GTGGCCAATG
165751	GTATCCTGGG	GTGAATTAAT	AAGAGCGTGG	CCAGCAAGTT	GAGAGAGGTG
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165851	CCAGTTCTGG	GCTCCTCAGT	TAAAGGAAGA	CAGGGAACCTG	CTGAGGAGAG
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165951	AAAGAAAGGT	TGAGAGACCG	CAGACTATTC	AGCTCAGAGA	AGAAAAGACT
166001	GAGGGGTGGA	TCTCATCATT	GTTTATAAAT	ATCTAAAGTA	CAGGAGTCAA
166051	ATGAATGGAC	CCAGACTGTT	TTCAGTGGTG	TGCAGCACAA	GGGGGCAATG
166101	GCTAAAAACT	GCAGTGCAGA	ACGTTCTATA	CAAACATGAG	GAAGTACTTC
166151	TTTATTTTGA	GAGTGACAGA	GCACTGGAAC	AGGCAGCCCA	GAGAGGTGTG
166201	GGAGTCTCCT	TCTCTAGAGA	TATTTAAGAT	CTGCCTGGAT	GCTTTCCTGT
166251	GCAACCTGCC	GTAGGGAACT	GCTTTAGCAG	GGGTGGAAGT	GGATGATCTC
166301	CAAGAGGTCC	CTTCCAACCT	CTATGATTCT	GTGATCTGAA	CTTGCTTTCA
166351	CTGTAAGCAT	TCAGTTTCCC	ATTGTTGACC	ACTGCTTATT	GCACTATCAG
166401	CGCCCCATGG	ACCTACTGAG	AAAGCTCATT	TTCTTCTGCA	TTATGATACA
166451	CAAGAAATAA	AAGTCTGACC	AGAGCAAATA	GCCCAGAAGA	GTGGCTTCCA
166501	AACATCCAAT	GCTGTATCAG	CAACATCCAT	TTCTTCCATT	AGCTTAGGAG
166551	GGCAGTAGCT	GTGCTATCTT	ATGCCTATAA	GGAATTGGAT	AAAGTTTGTG
166601	AGCCATTATG	ATGCCACCT	ACCACACGTC	ACAGGACATT	ATTTCAAGCA
166651	ACAAGATCTG	AATGCTGGAG	GGAAGTACTT	TAGAAATATA	TACTCCTAGC
166701	AAAATTCCAC	CTGTAACCTAC	AGCTCACTCT	ATGCCTCAAC	AAAAGGTTAG
166751	CTATTTGGAA	ATATATCTCC	ACCCAACAAA	GTATATATAC	GCCGCCCTTCT
166801	CTGTACACTG	TGCTGCTTCT	AAACTCAGTG	CCCTCCCTCA	CCTGTAACCC
166851	CCAGCTCAGG	GTTTCAGCTGT	CTGTCACTGA	GGACCCACTT	TGGTTCAGCC
166901	CAGCTACATG	CTACTGACTC	AGCTTTGCAA	AGAATTGCAC	ATTGTAATTT
166951	GTATAAGTGT	GGAAAAGCAC	ACAAGTGAAA	ACTACACAAT	ATAAGTAAAG
167001	TAAAAACACA	AAGAAAGTTAC	TGTCAGGATG	GAATAGTCAG	CATAGCAAGG
167051	ACTCGAGAGG	ATTGCACGTA	GGGGTGTCAA	ACTTCAATTA	AAAAAAAGTT

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167151	CCCTCTGGTG	TATCATCCAC	CCCTCCAAAT	TTTGTATTGT	CTGCAAATTT
167201	GGTGAAGGTG	AACCTCTATCT	CAGCATCCTG	GTCATTAATG	AATGTGTAAA
167251	TAGTACTGAC	ACTGGTGTTA	ACCGCTGGAG	TACACCACTA	GTGACTTCAC
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167351	CTCACTTATC	TAACCCATCG	TTTGTCTAGCC	TGGCCATAAG	GATATCACAG
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167651	ACAAGGAATG	TTACAGTGCT	GGTGTATTTT	TAGTACTCAA	GGCTTGGATG
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167751	GTACCAATAT	TTTTTAAGGT	TTTTATTTC	CCATCAGTAA	CTGGAACAAG
167801	AAAATCCCTT	TTAAAATATT	ATTTATACTC	CAGTCACTTA	CAGGTCTATT
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168351	GATACCATAG	AGTGTCACCA	CAGTTTGGGC	ACCCTTTTGT	AATTTTCCTG
168401	TATTTTGTCC	CAATCTTTGT	AGTTTGTAGT	ACAGTAATTA	TTGCTATTAA
168451	CTGCTTTCTT	ACCTCTCCTA	AATATTCAGC	CCAACAGGTA	ACAGCAGTTT
168501	CAGATATGTA	GCAGGAACAT	TTCTTAACCA	CATAACTAAA	CATAATAGCA
168551	TTCGATAGAT	TTCTGAAGAA	AGAAAATGAG	ATTGATATTC	CAGGTAGGAA
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168751	ATACAAATGC	TTTTCACAT	AGGTTGACTG	CATGCTGATA	ACTGGTTTAC
168801	TTTCCAGTGT	CATAACTGTG	AGCAGAGGGC	ACTCCTAAGG	CAATTCTGAG
168851	TAACCAAACA	TGTACTAGAA	AATATATACA	ATGATTGCAA	AGGAACTGA
168901	TCAATGCATT	TCATCCAAGC	CACGCAGATA	AAAACCTGGAA	TTGCTAATTA
168951	CATTGGTTAA	AATAAAATGC	CTGTGTACAG	ATAACTGTCT	TGCATTATAT
169001	CTTTACTGAT	CTGATTCCAT	ATAACATGCT	ACTTCGACTC	TCTACTACAA
169051	AACAACAAGC	AGTTTCAGTA	AATCAAATAA	TTACAAGCAG	AACTTCCAAG
169101	CAGCTTGGCA	GCTTTTCGTG	AGTGGCCCAA	ACTCCCTCCC	TTCATAGAAG
169151	ATAATAAGCT	TGGCACAGTG	CAGGGCCTGT	AGGTTATCTA	AAGCATCTTC
169201	ACCTCCTCTG	CTAGGAGGAA	ATGCATTCTC	TTAAAGCACC	ACCCACCAGT
169251	TCGAATAAGT	ACCATGCTCA	CGTAGACTTC	ATCACTTGCT	TTAGGTGACT
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169351	AGGATTAAGG	GTAAAATATC	ACAACATAAG	GGCTTTGTGT	GACCTGACAA
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169601	GCAATTCTTA	CATACTTGCA	GACAAAGATT	GAGGAGGGCA	CCACTGGGAA
169651	AAAGGCATAC	CAGGCTTCAT	GTTTCAGGAC	ACACACCAAC	TAACAGTGGT
169701	TTTGAATTGG	CCTCTCTACC	CTCATCTCTC	TAATTCTGAA	AGCCAGTGAC
169751	GGAGAGAAGA	AATGGGAATA	AATGAGGGAA	CAGGCATATT	AATACAAGAA

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169901	AACTCTTCCC	TCTCTCACAG	GATTTTCAGT	AGTGTAATA	TTCTTATCTA
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170001	AATGGAGAGG	GTAAATGGTA	ACTTAAATGT	CATGCAGGGA	AATGGAGCAC
170051	TCAAGTCTTC	ATACAAACTG	CAGCCTTTAG	GAAAACACTG	CACAAAGGGC
170101	ACAGTGTTC	GGATGCACAT	CCAGACTGGG	CAAAACCTGT	GCAGCACATA
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170201	CTACCAGCTG	ATTTAGGATC	AGAGGACTGA	ACACAGAACG	CAGATGATAA
170251	TGCACTCCTA	CTGATCCTGG	AGTTGAACAC	ACGTGACTGC	ATGACTCCAT
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170451	AGCCCTAGAA	ATGCTTGATT	GCTGTGTGCA	AATTCAGTTT	TGACACGCTC
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170601	CTCCAGGCAC	AGCAGTAAGA	AATACCAGGC	TTAAGGTAAA	ATGCTTAAGG
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170751	CCCAAAGCT	CCAGCTATCT	CTAAGACTGA	ACAGCAGCTG	GTTTTGAGGA
170801	CTGCTGCTTT	TGATTTTCAGC	ATGCAAATTG	TGAGTGAAGC	TGGACTGAAA
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171101	TGCAGGTTCT	GATAAACCAG	CACGAAAGTA	GAACAGAGCT	GTTGCTTAAA
171151	ATGGGAAGTG	TTTGGAGTTG	TATGTAAGAC	ACAAGAGCTT	ACTTGAAAAA
171201	CAGTCATTAA	CAAATCCAGC	TACAGTTGAC	AAATGCAGGC	CTACGCTCAC
171251	AAAGATCAAA	TAACAATCTA	CAGATCTCCA	TCAGCCTTCT	AAAGCATGTG
171301	GCAAATGGCA	TGAATTCGCA	ATAGTTCTTT	CAGCAGAAAA	TAATGCAGTT
171351	TAAGGAAGTA	GGAATAAAAG	CTCAGCGCAG	CACAGTGGGA	AATATTTCTA
171401	TTTCGCTCCC	TCAGAATGGA	AGGATAATTC	TAAGAACTT	AAGTAAATGC
171451	TTTTTAAAGAA	CAAGTTTGGT	TTGGGAAAAC	GTTCTTAAAA	TAGTGTTTGT
171501	CTGATGATGA	ATAAGCGAAA	CGGCTGAAAC	AAGAATATAA	GCATTTAACA
171551	GTGATGGGAA	AGGGAGAAAT	AGCGTAGGTC	TTAAAAAGGG	ACTTGCTATC
Z1 exon 1					
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171651	TACAAGGGTG	CAGGCAATCT	CCTACCAGCA	ACTTCCCATT	TTGTTAGATG
171701	TTGTGAAGAT	GCAGTCATCA	CCTCCCTCTG	CTAATCATTC	GTCTCAGGCT
171751	GTATTGATGG	AGTGTCTTTC	AGCATCAACC	AACAGCTTCA	CCCTGGACCT
171801	TTACAAAAAG	CTGGATGTAA	CTTCCAAAGG	ACAAAACATT	TTCTTTTGCTC
171851	CTTGGAGTAT	TGCAACTGCT	CTCGCTATGG	TCTATCTGGG	TGCAAAAGGT
171901	GACACAGCAA	CCCAGATGGC	TAAGGTAAGT	TCTGAACTTA	GCAGTGTATC
171951	ACTTAAAGCT	GGCTCCCACG	TGACTTGCA	TATTCACCTG	CCTACGTGGA
172001	ACAAAAAGGA	GCAACATGAG	AGAACAGTGA	TCCGCCATCA	TGTTGGGTGC
172051	AAGAAAAAAC	ACTGCATGCA	GTCCTGCAGG	ACACTGTTGT	TCCAACTTAT
172101	TTCCAAGAGC	CCCCTTCTCT	GCTACCACCT	CTACCTTTAG	CTTAAAAATTG
172151	TTCTGGCAGA	GTGAAGCTAT	GGACATTAGA	GACTGTCTTC	TCATTCTCCA
172201	CACCCAGTTA	GTAAGTCCTC	TGAACCCAAG	CTTGGCTGCA	CAGCAGCAGC
172251	AGCAACATCT	TTGCTTGTGA	CATGGTTAGT	CCATAAATAA	GGTAATACAC
172301	CCATGAAGAA	GGGAAGGTTT	AGATTGGATG	TCAGGCGGAA	GTTTTTCACA
172351	GAGAAATGGTG	AGGTGCTGGA	ACAGGCTGCC	CACAGAGGCT	GTGGATGCCC
172401	CTTCCCTGGA	GGTGTTC AAG	GCCAGGTTGG	ATGTGGCCCT	GGGCAGCCCC

172451	GTCTAGTATT	AAATGTGGAG	GTTGGTGGCC	CTGCCTATGG	AAAGGGATTG
172501	GAGCTTCATG	ATCCTTGGGG	TCCCTTCCAA	CCCAAGCCAC	TCTACGATTG
172551	TATGAATAAT	GGGGATATAC	TAGAAATGAA	AATATGATAT	CATTTATAAC
172601	CACTTTTGCA	AAACTTTTCGG	TGATGTACTC	CTAGATTATA	TGCATTTACA
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172701	AATAGTAAGA	CTACAAACCA	TCCTATGTTG	TTTGTTCCTG	CTGATAACAA
172751	TCTGAAAATA	AATTCCACAT	TGCTAAGCAT	GAATTGACCA	TTTCTCCAAA
172801	TCAATCCATG	TCTGAGCAAT	CACATTGATC	TGTTATTAAG	TAGTAAATGA
172851	CTAAATTTAA	TATAACTATG	ATACGGTTAT	AGAATCTAAA	TCTAGACCGA
172901	GGTCTTGTTT	TCTATAACTT	TAATAGACTA	ACATTTGTAC	GATGGCTAAA
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173151	GCTCAGAGAA	ACAAATCTCG	GAGAAATGGG	CAGCACAAC	GCCTTAACCC
173201	TCTGAAATTT	GTCTGTCTAT	ACCTACTGTC	CTATTGCAGT	AAGAACTATA
173251	CATAAAAAAT	GTGAACAAGC	AGGTAATATT	ACTGTAAAAC	TCACGAACTC
173301	AGAACTTCAA	AGCAGAACAG	AGACACCAGA	AGCATTCTGA	TTGTCTTTTA
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173501	TGCTATGCAT	GCACACATCA	GGCAAACAAA	ATCCCCTGT	AAGCTAACAC
173551	AACTGATTC	ACCCTTGCTC	ATCAGCTCCC	CAGAGACTTG	ACAGCAGGAG
173601	GAAGTGCACA	GAAGTCTTCA	CGCCTCAAAG	GTCTGTCAAC	TCAAACAAGC
173651	TGCAATTCTT	TAGCACAGAA	ACTAAGAAAG	CTCAAAGAAA	CCAAGTTAGA
173701	AAAAGTGGAA	ATAAAAAGGA	GCAGTTACAT	CATTCTCCAT	CTAGATGGCC
173751	GTGGATTAAT	ATTTAAGATA	AATCATTATG	TCCACATTGA	TTTTAGCTAT
173801	TCACTGCCTT	TCTAAGTTGC	ACAGCAAGGT	CTGCCTGATG	TAGCCTTCCA
173851	GACATTTCTC	TCCATTACCT	CTTCACTATG	TACCCATTGC	CTTGCAAAAC
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173951	AAAGCCTGTA	CCTCTGCCTG	TGTGAAAAAA	TACCAGAGGA	AGGAATGCCT
174001	CCTCACCAAT	CTTATGACAA	GCCCCCATGC	ATCAGCAGCA	AAGAATCTCG
174051	GTGTCTCACA	TGTAGCGCAT	GGTACATGCC	ATGGAGCAGG	AAATTATACT
174101	GAAGCAGCTT	ATCCCTACAC	TACGAAAGCA	ACAGCTGACA	AGCAAGCTCC
174151	TGCTCCCTAA	AACCATCACC	AAGGACATTC	TGGACAGGTT	CCTTCCAACA
174201	TCCAAGCAGT	AACAGCAAAA	TTACATCAAA	ATAGAAAATT	CGAATCAACT
174251	CAATTACATG	ACATCAGTAT	CTGTCTGAAC	AGAGTAGCTC	CTCAAAAGCT
174301	GCAATGTTGC	CTTAATGATT	TTTGTGATAA	TCAAAATTAG	GCTTGACTGT
174351	GACTGGAATG	AGATGACCCA	ATATCCTGGG	TGCACCATCT	GAGGACAGCT
174401	GATGTCCTCA	AAGGTGTAAG	CAGCTCCGCA	GAATCAAATC	ATAACCCAC
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174501	TACCCGAAGA	AGAGCTCCAT	CCCTGCACAC	ACTTTTTTAA	TTAAAATGAC
174551	CTGGGGATTT	TAAATAACCA	TAGAAAGTGT	AATGCTTCAG	CCAAAAATAT
z1 gene exon 2					
174601	TTCAATACTA	ATTGGTGCCT	CTTTCCAAGG	GTCTTGAGTA	TGAGGAAACT
174651	GAAAACATCC	ACTCCGGCTT	CAAAGAAGTC	CTGTCTGCCA	TCAGCAAACC
174701	TAGAAACACT	TACTTGCTGA	AAAGTGCTAA	CCAAGTGTTC	GAGGACAAAA
174751	CCTACCCATT	ACTGCCTGTG	AGTTGAACGT	TTCTGCTTAA	GAATGTTTTG
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174951	CTGTTGGTTC	ACTTCTCCTC	TAAAGGAAGC	TTCTCCATAT	CAGTGGTCAT
175001	CTTCTCCTCC	CTTCTCACTA	TCTATTACAT	TCTAGCATTT	CTGAGATTGG
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Z1 gene exon 3

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176951 ATTCCTGGGT TGAAAACGAA ACTGAGAGTA AGTATCGCTC TGATGGCTTT
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177151 TTGCAAAGTT TTTCCCTTGA TTTTTCATGT CATAGTCTCT TCTGAAGTAT
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177251 GTGAAGGTTT TACTTCTGCA AGCTTCAACT GGTTGCAGCC AACTCCAGAG
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177351 ATAAATATGG TTTAAAAAAC AGTGATGCTT CAAAAGCCAT TTATGTATGT
177401 ACGCTGTGAA AAATGCACAG GGAAAAAATA TCTCTGAGTG TAAACACTTT
177451 TGTTAGATAG CTAGGCATAG AGAAAGCACA TCTGAAATTG GTGAGTTGTG
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Z1 gene exon 4

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177701 ATGTCTATTA TGGCAGAGCA AGAATCCTCT AAATATTTCA CCTGCATTTT
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177801 AGAACAGCAA CAGTGAAAAT AAATCAGCAG TCTCATTTAT ACAGATGCAT
177851 GAGATTAGGA TTTTCAGTTA AGTTAGTAGC TTCTTGGCAC CAAAACAGTT
177901 GAAAACACCA TGGTTAAGCA GCTTAAGGAC AAGAGAAAGT TTCTCTAAGT
177951 ACTGAGATAT CATTTTCAGA AGGAATTGAG CTAATTCTGA GAGCAGTACT
178001 TCGACACCTA GGTCTCTTTT CATGCTTTTC AGACAGAGGC TGTATAATGT
178051 GAGCTCAAGT AGCCTAAGTG TTCTTTCCTA ATGCCCTGGC CATTGCGTAA
178101 AACCTCACGT GGAATTCTCA AGAGGGTTTG TCATTTTAGC CAGATGCGTA
178151 TGGATGATGT GTTCAGCATG CATTGTGGGC ACGACTGAGC TTACAGTATC
178201 TCAGTGATTG TGCATGGACA ATTTACAGTA GCTGACAGCA TGCATACTTT
178251 CGGCTTGTGT CAAAGGTGAG CAAAAAGAAT TTTCATTCAG AACACGTTGT
178301 TTGACATGAG ATTACGAGTG CAAACACCTT TTGTATGTCT GGTGATGTGA
178351 AGCAATTGTG TCGATACTGT GGCTGTGTTA TCTGAAACCT ACTACATTGC
178401 ATGCGCAGTT TTAGGACCTG TAATAGTACA CGGTGCACAG AAAGGGTTTC
178451 ATTCACAGAT TGGCTGATAG CAAAGCCTGC AAACAGATAA GCTTTTGCAC
178501 TTGTGTAACA ATGGAAAAGA GAGAGTGGAT ATATCAGTGA AGGTCTCTGA
178551 GCATAATACA GCGTAAGAGT TCAGATGATT ACTGTCTAAC GCGATTTTCA
178601 TTGGTAATCC AAACCTCTAC AGTTTGGGAA AGAGAAAAAA CAAGCAGAGG
178651 TCACAGCAAA TATGGTCCAT AGGTAAATTC AATCAATCAG TGCTGTCCGG
178701 AAGCATACAA AAGAGTTGAT GACATCCAGA GAATGAAAGT CAGCATTTTT
178751 TTCCCTCCC AATCAACACA TTCACTCAAG AAATGTAAAG TTTTGGGGAA
178801 AACTTGAAAC ATACAAAGTA GTTTCTTGTT TACCAAAGCT AACTCTTTCA
178851 AAAGAGTGAG AAATACATTG CATGTAATTA TGTATCAGG TGGTGTCTGT
178901 GCTTTTTTTT TCTTTTTTTT CTTTTCTTCT GAAGATCCCT TTGACTTTGA
178951 AACAGGAGAA ATGGCACTGG GAAAGAATAA TGCCAAGTCT TATACTTGTT
179001 TACAATTTT TTTTGCCTTC AGTTCAACAA AGCAAGTAAT CTTTACCATT
179051 CACCTTAAGG AATAAGTACA ACTAATCTTT TTCTTTTCTG TTCTTTTTTA

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Z1 gene exon 5

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179101 ACATCTGAAT CATTTTCACAG ACCAAGACTA AAGCAGTACA GATGATGTTT
179151 CTCAGAGATA CATTTTTGAT GCTCCATGAA CAAACAATGA AATTCAAAT
179201 TATTGAGCTG CCGTACGCGG AAAATGAACT CAGCATGTTT GTACTCCTAC
179251 CAGATGACAT CAGTGATAAC ACTACTGGTC TGGAGCTGGT AAAACTGACA
179301 TACTGCATCA CACGCACTAC AAAGCACTAA CAGAAATAGA TGAAAACAGT
179351 GAGGAAGAAT GAACTTCAA TGACACAATG ACTGCTCAGC CTAGGTTTCA
179401 GGGCATCTAT TAATGATGCA AAAATACAAA TCTACCTGAG GATACACCTA
179451 AAAAAGTATG CCCACTCTAC TCTCTTAGCC TATTCGGTGC CTCCTTTTCT
179501 ACCTCCAGAA TAGCAGAATA ACGAAAGCAA GAATCAAATC TAAACCACTG
179551 TGCCCCAGAA TTAATCTTCT GAGGGCAACA CTAACCAGTT TTATGTCATC
179601 CGCAGTCCAG ATTTCCACCT GATACTTTGT AACGAGGCTT TTCAAACCTG
179651 GGGCTGACTT ACCTTGACCC ATGAGGTATC AGCAGCCACT CATGACCGTG
179701 CCAGGATTAG TTCCTGAATC TAAATACATC AGAGCTTCAG AATCTAAATA
179751 CATCAGGGCA AATATCTTTT TATTTGCTCT TGAGGTCCCA TGCATTCCAC
179801 TTAATTACCA CTACTAAGAG AAATGCCTTA CAAATTCACA CATACCAAGC
179851 ACTTATTAAT GTGGTTAAGT TGGACACTGC ATAAAAGCAA CACTTCTCAT
179901 ATCCACCTCC AAAATAATGA ATTATTCTGA AGGTTCACTC TACACCTCAC
179951 TGCATTTAAG GAAACAGATA GAAGTACAGG TCACTCAGCA CTATGCAGGA
180001 TCACATCCTA AGAATATGCA GCACATTTCA GCTGTACTCA CAGCTGGTAG
180051 TTGGACCTTT TAAATCTAGA GCATTAGACA CCAATGTATG CATGCCTTCT
180101 TTTTCTGTT GCATTATGAC TATATTCTTA TAAAATTCAT TGCAGGTAGA

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Z1 gene exon 6

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180151 AAGAGAGCTG ACCCAGGAAA AATTAGCTGA ATGGTCCAAC TCAGCCCGTA
180201 TGATGAAAGT CGAAGTGGAA CTGTACCTGC CCAAGTTGAA GATTGAAGAA
180251 AATTATGATC TTACATCCAC TTTGAGCAAC ATGGGGATAC AAAATGCTTT

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180301	TGACCCTGTT	CAGGCTGATT	TCACAAGGAT	GTCAGCAAAG	AAGGACTTCT
180351	TCCTATCAAA	AGTTATTAC	AAAGCTTTTG	TGGAGGTCAA	TGAAGAAGGT
180401	ACCGAGGCAG	CAGCTGCCAC	AGGTGTCCTG	GTGTTGAGGT	CAAGAACACC
180451	TAGAGTAACT	TTCAAAGCCG	ACCACCTTTT	TCTCTTCTTC	ATCAGACACA
180501	ACAAATCCAA	AACCATCCTC	TTCTTTGGCA	GACTATGCTC	ACCTTAGTCA
180551	GAGTCACTCC	CTGCTCTACA	GAGCAGGAGA	TGCTGGCTTG	CCAGCTCAAG
180601	GGCAGAGCTT	GATACTCCTG	CTGCAGCTGA	GGGACTAAGA	CCTGCACTCT
180651	TTCAGACTAC	ACATTCCACA	GCCCAAGGCA	AAGCTTCAAC	TACTCCAGAT
180701	AGCCATAGCA	GTGCCTGTAG	ATGCATTTGA	TTCTTTCCTC	TTGCAGCAGT
180751	AGATACAAAC	ACATGGCACT	ATCTTCGTTT	TCACAAGTAG	AGCACCTGAT
180801	TCAGGTGTGC	ATCTTCACCC	TTCCACCCTG	CCATAATTAG	CCCCTGCTCC
180851	TCTGTAGCTC	TTGACTAGTT	CTTTTTGTTA	CAGAGGCACA	CACAGCCCAA
180901	GCTTAAGTCT	TTACCAGTTC	ACTTCCATTC	TACTGATTGC	CTGAAAGACA
180951	TAACAAGCAC	ACACTCCCAC	GTGGGCTATT	TCCTCGCACG	GAGTTACAGG
181001	TGTGACAGAA	GAGCCTGACC	CATGCTGCTG	ACTTTATACA	AAGCAGCACC
181051	TGCTTCAAAA	ATAGCAGTAC	TGATAATAAA	CAACCCCTCG	TAGCTTGATG
181101	GTGCTTTCTG	TCAGCTCTAC	CAGGAGGGGA	AGGCAGAAGG	GGAAATCAAG
181151	CAGCGACAAG	AGGCTCGCGG	AGGTAGCGAC	CTCCGAGCTA	AAATGGCCGC
181201	CTCCCACTGC	TGCAGCGAGT	GCTCAGGGCC	GCTTTCCGCA	GCTGAGCTCC
181251	AGCCCTCTCC	CCCACGATGG	GCGGCCCGTG	GCTAGGCAAA	AACTTCCGGG
181301	AGGAGGGCGG	GGCAGAGGCC	AGGGGAAAGC	TGGTGCTCGG	CTGGGTGAGT
181351	GTGGAGGGTC	TGTGTTGTTG	TTTTCTGCGG	GAAACACGCA	TTGTTTTTTT
181401	GAGGGGAGAC	GGTAGCGTTT	CCCTCGCGGC	GGCGCTCTGA	GCGGTTTCGG
181451	CGGGCGCGGC	CGCCGGGCGT	TGACCGGGTG	CTGGAGGCGG	GAGGGGCCCC
181501	GCAGAGTTCC	GCACCGCTGG	AATCCATCCC	TGTCATCCAG	CCCTGCCTCT
181551	GTGGGTTTTG	TGGCAAACAG	CGGGAAATCG	ATGGAGAGGT	GCGAGCTTCA
181601	GCCTGTTCTG	AGTCACAGGG	AGAGAGCTTG	GCCAATTGTC	CTGCGCCACG
181651	CCTTATTGGA	GCTGTAAGGT	GCACGGGATT	AAATCGCTCC	TGCTTCAGGC
181701	AGAATGGAAG	GACTGTTTTCA	GTCCAAGTTT	TCTTTTCATC	AGTGTTTTTTA
181751	TGGCTATGGG	CAGAAGGAAA	CATGAGTACA	GCTGCAGCTG	TTGAACGTAG
181801	CCAAGCTCCT	ACCAAGAATT	TGTCTTAGAG	GAAACATGCC	TGAGGAAACT
181851	TGCTGCTACC	GCTTGTTTTGA	GATGATGAAT	CATTAATACA	AAGTAGGCGT
181901	TGGCTCTGTA	TTTTCTAGCA	ACGTACCAAC	ACCAGGCACT	GCCTTAGGGG
181951	AAAAAAAACA	AACCACCTTT	ACTACTAGTT	GATATCCTGC	GATGTCCTGCT
182001	GGCACTTATC	TGTAACCTTAC	TCCACGTTCT	GGCACTCGTT	GCTCCTTCCT
182051	GTAGGTATGT	AGTATAACTT	CGGATTAGTT	AGCTACCTGC	TCGGCTGACG
182101	TATGTGAAGT	CTGACAAGCA	CTGAGCTACG	TATGTGCCAT	GAAGTTCCCA
182151	ATAAACCGTT	TACTTTATTG	CGTCTGTTTC	CATCGTGTAG	ACAATAAAAG
182201	GCAAAC TGCA	GTGGACTTTG	ATTTTGTACC	ACAGCAGGAA	ACCCCA GTAA
182251	TCTGTAATGC	TGACCAGATA	AATTTGCTTT	GAATATTGTA	GATCGAGTCA
182301	TTCAGTTGGA	TTCTGGCAGA	CTGACTGCTA	GGTCTAGAAC	ACAAGTGAAG
182351	TAATCTTGAA	GGGAATACTG	AAGACACACA	GACTTTGAGA	AGGTGAGTTT
182401	ATAATTCTGC	CATTCTGATA	CCTTTCTGCT	TTGGTTTTCC	TGTAAAGCAA
182451	ATAACTGTCT	CTGTGGAGCC	AAAGGAGACT	TATTCTACCA	AGTCCTAGTA
182501	TGCTCATCTC	AAAAAATATA	GTATTATTTA	CTCCATGAAG	AAGACCAATG
182551	ACTTTTCCTC	ACTACAAGAA	AGACATTGAG	GTCTTGGAGT	GTTTCCAGAG
182601	AAGGGCAAGA	AAGCCGTGAA	GGGTCTGGAG	CACAAGTCTT	ACTATTGAGT
182651	GGCTGAGGGG	GCTGGGATTG	TACAGCCTGA	AGAAGAGGAG	GCTCAGAGGA
182701	GACTTTATCA	CTCTGTACAG	TGACCTGAAA	GGAGGTTGTA	GTTGGCCTCT
182751	TTTCCTGGGT	AACAGCAATA	GGATGAGAGG	GGATGGTCTC	AAGTTGTGTC
182801	AAAGGAGGTT	CAGATGGGAT	ATTATGAACA	ATTTATTTTC	CGATGGTGTA
182851	GGCACTGGCA	CAGACTGCCC	AGGAAGGTGG	TGGAGTCACG	TCTCTGGAGG
182901	CATTTAAGAA	ACATGTAAAT	ATGGCACTGA	GGGATGTGGG	TTAGTGGACA
182951	TGGTGGGAAT	GGGTTGACAG	TTGTACTAGA	TGATCTTATA	TTTGCTTTAT

183001	GGTTTATATT	GAGAAATGTA	AAAGACAGAA	ATAGGTTGTC	AGTTTGTGAT
183051	CAAATAAAAT	TAAGCCAATC	TTCATTTTTT	TTTTTCTCCT	AGGCTTTGAA
183101	CCATGGATAG	CCTCAGTGCA	GCAAAATCCA	CTTTTGCTCT	TGACCTTTTA
183151	AATGAGCTGC	GTGAGAAAAG	CAGCACAAAG	AATCTATTCT	TTTCTCCTTT

Z2 gene exon 1

183201	TAGTATTTCT	TCTGCTTTGT	CTATGATTTT	ACTGGGTTCA	AAAGGGGACA
183251	CTGAAGCCCA	GATAGCAAAG	GTATGTATCC	AAACGTAATG	TATTGGATTT
183301	GATGCATATA	TCATCTACTT	AATGATATAT	GAACACAGA	TCTGAGATCT
183351	GTATTACAGT	CTGTGACCTC	TAATTGCTGA	ATTGTTACAG	TCATTCTGGC
183401	CTCAGAGGTC	AGAAGTCTTC	CTTAGGTATG	TACATAAGCA	GAACCTATTT
183451	CTATTGAGTT	TATGTATAGG	ACTTACTGCA	GTGTGAAATT	AAGAGATTCC
183501	TGTTTTTTGG	GGTGTGTGTG	GGTTTTTGT	TGTGATACGG	AGATCTTCCT
183551	TTTATATGTC	ATTAACAGGC	ACCTGGAATT	TCTTTTTTTT	TTTACTTACA
183601	TATTTGTATA	TTTAGAGCTA	TAGATGAATC	TCCAGTTACA	TAAAATAAAT
183651	TACTTTGTAA	TCTTTTTGGG	CTTAATATCA	GACTTTGCAT	ACTTCAAAAA
183701	TGTAGCCAGA	TAATCAAGGG	AAAAAAAATC	CAACATACAA	GCATGTCATG
183751	TTAAACAGTC	CCAGATTTTA	GGAAACAAAC	AAAAAAATGA	TCAGTTGCTT
183801	GTTTCAGTGTA	ATAGCTTTTG	TTTTCACAAC	CTGTAATCTC	AATCCTGGAA
183851	CATCCAGAAG	AAAGAAGTGA	TACAGGGCTA	AGAACATAGC	TCTGAAGTTC
183901	CAGAGAATAC	CCCAGCAAAG	ATTCAATGGG	GCAAAGCTGC	GTGGCCAGTG
183951	AAGAGTAAAA	TTCATAATGT	AACTTGCAA	TTAAATTACC	AGGAGAGCAG
184001	TTAAGGAGTG	CAGTGGTGGG	CCTGTTGTGT	GACAGTAGGG	TCAAATCTAT
184051	CATTAAGTGC	AGTGCAGTTT	ATTCTACGTT	CACTAAGGTG	CGTGCCTGCC
184101	TCTCTCTTTC	TGGTATTGTA	ATTTGGAGTA	GATCATCAAT	ACTTTTTTCAT
184151	TTGTAGCTAT	GGTAGTAGTG	ATGAGGCTGA	ATGAGGATGA	AGCTGATGTG
184201	TTGTTTTAAT	GGGAATTTAA	ATATTGCTT	GTGTTGACAT	CGGCTCCAGC
184251	AGCCTATTTT	CTGTTATCGC	TTGAAGGATC	GGGTTTGCAT	CTAAGGTATT
184301	AAATAAGATG	CTTTGGTGCT	ATTATAATCA	GTGTGAAAAA	TTATGGAAAG
184351	TTGTTTTTTT	TTATTTAATC	TTCAGGCTCC	TTTGTTTCTG	GATTTTAAACA
184401	GTTTTTGCTAG	GTTTTATAGG	GTGGAGATTA	TAAATCCTCA	GTTCTCTAAG
184451	AAGTACTGTG	TACAGCATT	AGAAAAGGGC	AGAATGTGTC	TGCACTCAGA
184501	CTTCTTTGGA	GGCTGGATGG	GTTCTTAGA	AAGCAGGGAG	ATAAACCCAGG
184551	TAACCTCCAT	AGCTTCCTTC	CAACCTCAAC	CATTGTGTGA	TCCTCTAATG
184601	CTTGACAAA	ATGAAGATAA	ATACCACTCA	CTTTTCAGCA	ACGTAATTTT
184651	TTGCTTATAC	AACATCTGTG	TGGATACATT	GTACGTGACT	TGTGTAATGA
184701	AAAATCTGCT	GGCTTCAAGT	CTCAAACTC	ATTTAAAAAC	AGAACAATTG
184751	TGCTGATGCA	AGTGTGTCAG	AGATTACGTG	GACTCCACAG	AAGGTATTTG

Z2 gene exon 2

184801	TCTCTCTGCA	GGTGCTTTCT	TTGAACAAAG	CTGAGGATGC	TCACAATGGG
184851	TATCAGTCGC	TTCTCTCTGA	AATTAACAAC	CCTGACACCA	AATACATCCT
184901	CAGAACTGCT	AACCGACTTT	ATGGAGAAAA	GACATTTGAG	TTTCTCTCAG
184951	TAAGTAAACA	TTAAATTTGG	GTGTTGTGAA	GTATAATGTA	CTTGCTAGCT
185001	ATTCCCCTTG	AAGGTTAGAT	AAAGGCTTTG	GGTTTTACTC	TCCAAATTTT
185051	TCTAGGCTGA	GACTTACAAC	CTGAGAGTCT	ATGCAAAAAG	CAGGATGTGA
185101	ACAGAATGGA	GAAGCTACTT	TTAGATTATA	TGAATGCACA	ACTGGTGCAA
185151	GACCATGAAA	AAAAACTAAA	TCTTCTAGGT	TTCTTGGTCC	ACTTTTGGTG
185201	GGTTCTAGGA	TCAAATGAAT	GACAAATCTC	CTTGCCTTTG	ATAACCTGTA
185251	GCTATGATGA	AAACAACGTG	TACTGCTGTC	CAGCATGGGC	AGAACTTTTC
185301	TTTTTTCTTA	ATTAAACAAT	CCAGAGAACA	TGCTGAGAGG	AGTATGTGAC
185351	TCTTAATATT	TTCTTTATAA	GTATATATAC	ACAAGAGGGC	ACAGGTACGT
185401	TGCATATACA	TTACATATAC	ATTATAACAT	TGTATGTTCT	CTCACTCAAG
185451	CAAAAAGAAC	AAACGGAAGA	AACAAAAAGA	AACAACCCAG	ACAATCATTT
185501	CTCAGTTGAG	TACTGTAGAA	TGTTCTGGTG	TATTAAAGAA	GACATTTGAC
185551	TTCTTAATAA	CAAAGAGGAA	GATAATTCCT	AGCTCAGATG	GCTAATAAAA

185601 CAACTGATAA GAACATGTCA GACAAAACCT GAATGGCTTT ATATCAAGCT
 185651 GGGGGAAGAG AGGATATAGA TTTTCTCAG TGTACTTAAA AACATCTGTG
 185701 GCTGAATGTC AGTAAAATGC ATTGCTAAAA AGCTGTTTTA AATGTTTCATG

Z2 gene exon 3

185751 GCAGTCATTT ATAGAATCGA GTCAGAAATT CTACCATGCT GGGCTAGAAC
 185801 AGACTGACTT CAAAAATGCT TCAGAGGATT CCAGAAAGCA AATAAATGGC
 185851 TGGGTGGAAG AGAAGACTGA AGGTGAGTGT TCTGCAGAAC TCCCTGCTGT
 185901 ATGTAATGTC AGCCAGGACT TGCATAAACA GCTCTGTCAA GGTGTAATAC
 185951 TGTCAATTTT AAAGCAAACA CAAACCTCAG CCATTGTGCT CTGTCTCTGG
 186001 TTGGGGCATA ATTCCCATAT CTGATCTATC GTTAATACAT ATTAGATACT
 186051 CTGTATTGCA ACAGTTGCTT ACGTACCACT GTTCAATTG TGTCTTCTAA

Z2 gene exon 4

186101 AGGTAAAATT CAAAAATTGT TGGCAGAGGG AATTATTAAC TCAATGACCA
 186151 AACTTGTGTT GGTGAATGCC ATCTACTTCA AAGGCAACTG GGAAGAGAAG

MAR-like element

186201 TTTGACAAAG AGCGCACAAA AGAAATGCCA TTTAAAATTA ACAAGGTACG
 186251 CTACGTTAAT ATGCTGACAA TACAAAGGTC TTTGTAATAC AGAAGACAAA
 186301 AATTGTTCAA GCAGATTTAC CTAAGGTAGT CTGCATGGAG CTCCCTATGC
 186351 CCTGTCCCT TAGTATGAAC ACTCTCTTTG TTTAGTTTCT GTTAAGTTTC
 186401 ACATAATTAC TAAAACTTT AATATCACAT ATTTATTTTA TACTCTCTCT
 186451 TTTTTTTCCCT TTACTCTTTT TGTGTGTGTT TCAGTTGGTG AACTTGACTA
 186501 TGTCAGTGTA AAATCTGCAT GGGCAAAAAA CATTTCATAGG TTCCAGGCAG
 186551 AAAAGAACTT CCGTGTGTGC AGAAATGTCT GAATATAGCA GTCATCTTCA
 186601 GTCAGAATGC TTTCTTTTCT GCTGTGTTTC TACCACTAAA TTGATAGAAA
 186651 TGAAATGAGG TGAAGAAAAA AAAAACCACT CTCCTTTGAA GGCCTCCATG
 186701 CTTGACTTTC TTTTGCTTCT AAAAGTGCAG CAGGGCAATC GAGGAGGACT
 186751 TTATGATA TAATTAATAG TCATCGGCTG CCCCTTAGAG GTCAATTTCA
 186801 AATCTGGAT GTCCACCCAG GTGTCGTGAG AGTGAAGTGC TAATGTGAAT
 186851 TGCTTAAGAA CTCACCTGCT TAAAATAACC ACAATGCAA ATTGAAGCTC
 186901 TAGTGCCTAA TTTCAAACCT CAGTGTGAA ATATATACAG GAATGCTTGA
 186951 AACTGCTAAT ACCACTTTTC AAACAGGGAA TAATAATATT GCTCTTGCCA
 187001 TACTGTATGC TATAGCACTT AGAAACCACT GCACTGACTT GGTTCCTGTT
 187051 AGGAAGGGAG GTTTTTTATC AGTTTCCAC AGAGATGTCA CACAAAACCC
 187101 AAGCTTACAT TCTGCTTAGA GTTTTTTCCCT CTCCCTCCTC AGGAGGCAAA
 187151 TCCAGTGCTG TTTCTCTGGG TACGAGGCTC AGCCTAGTTC TGAGATTACC
 187201 CTTTCCTTTG CAGACACACA TTTATTTTGT AAGACTGCAG TTTTGGGAT
 187251 GCAGATGGCT ATTGGAACAA GTTGTAAGAT GTGAGACTGG GGAATGCTGC
 187301 CTTGGCTCAT CAAGTAACAC GCTGTTAGAT GTGCAACCAC AAACCTCTTC
 187351 CCTTACAAAA CTAAGTGGCT TAAATTTCTA TTTTCATCCT ATTGATGACT
 187401 AGTCACTGAT GAGCTACAGA AGTCAATGAG TAGGCTCAA TAAGCAATGA
 187451 AAAATCCAAA GGGCAAAGCT GAAGTTTTAA GCTAGTTATT TTACAGTCTG
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 187551 CATCTATTTT ATCTGTGACT TTTGCACTTT GTTGTGACTC ACTGGATGAT
 187601 TCTAGCATGC AGTGTGGGCT TTTCTTTGCT TATCCATCAT TTTTCATGTT
 187651 CACTGATTGC TGTGCAAAA TCATTTCCGA CATATTCTGT TCTCAGAGTT
 187701 CATGGCAGTC ATTTATAGAA TTGAGTCAGA AATTCACTGT CTCAATGGTC
 187751 TTTCCTTTAA AAAGAAAAAA CGGTGAAGGT AAGGGGAAGA AGGGATTTAG
 187801 ACTCCACAGA AAAGGAGGAA AATAATGTAG ACAAAGTAA CTGATGCTCC
 187851 ATGCAAAAAT GGAGAGAGAT GGGGGAGAAA CTGGTAGTAA GAAGACAAAA
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 187951 TCCTAGCATT TTTAGTGGCT TAGTAAAATA TTTTGTGTC CCTACGTCAG
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 188101 GTTTAGAGCT TGTCACACT TCTAAAGTGA GCAAATATGT ATTCTTGCTC

188151 CTTTACCCTA AAGCAAATTT CACAGATATC TCCAATTAAC AATTAAATCT
 188201 CAGGGATCCT TACTTCTCAT CTCTTGCTTT ACGAAAGAGT GACTGTGCTA
 188251 TACTATGTTA TGCAGTGTAC TTAGTTCTCT GTGCAGTCAA ATAGTAAAAA
 188301 GCCCTAAGTA ACTAGATGCC TGCTTCATGT ATTAGGACTG TCATGCCAGC

Z2 gene exon 5

188351 CCAGTAGTAA CTCTTAGTGT CTCTTTCATT TTAGAATGAA ACCAAACCTG
 188401 TGCAGATGAT GTTCAGAAAA GGTAAATACA ACATGACCTA TATTGGAGAC
 188451 TTGGAGACCA AAATCCTTGA GATCCCTTAC ATTGGTAATG AACTCAGTAT
 188501 GATCGTTCTA CTCCCTGATG CAATCCAGGA TGAATCTACT GGCTTGGAAA
 188551 AGGTAAGTTA TTGAGCTCAG TGCAAAGACA GTTTGTGTCC TGCCTTGGAA
 188601 GAGAGTTTGG TGCTGCACAT GGATTCACAG TTCAGTTTCA GAGCTATTAT
 188651 ATCATTGATG CTCAAGACTG ACTGAAATGC TCCTTGTGTT TCTGCCCTA
 188701 AAGTGGCATG CCATCTATTA CTA CTGGCCA AGCTATGTGC TGCTGTGCTA
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 189001 TGTTTTTTTT TCTAATGCTG ATTTTAATTT AAAAAGTGTT GTAAGCAGGT
 189051 TTTGTCACCA GCCCGTGAGC TGAAAGATCC TGAAAGGCTG AAGAACTGGG
 189101 TTCAGTTTGT TTGGGGCCTT GTCAGCAGTT CTCCCGTGCC TTTACTCCCT
 189151 ATATATAAAA TAAGGTTTTT ACAATCTGAT AATGTTTTAT AAAC TGAAC T
 189201 T TACTGTATC TACCACGAAA AAGAAAACAC CAAACAAGAA TTGACCTCAG
 189251 CTGAAGCTGT AGTCTCTAGT AAGTAGAAAC CTGTAGTGAC TTGTGCTTTT
 189301 GACTTGGGAT CCTGTAAGCT CCTGAAAAAG ATGCATATTG CATGTATGTG
 189351 TTTACATAAC ACACATACAC AGACAAAAGT AGAGATTAGT GCAAAACTGT
 189401 CACTATTCTT ATTTTAATTA CCTAATGTTG GGTATGTTT CGTTGCTTTT

Z2 gene exon 6

189451 TTTGTTTTTAA GCTGGAAAGA GAACTTACAT ACGAGAAGCT GATGGATTGG
 189501 ATCAATCCTG AAATGATGGA CAGTACAGAA GTGAGGCTGT CTTTACCCAG
 189551 ATTTAAACTG GAAGAAAATT ATGATCTGAA ACCCATCCTG AGCAACATGG
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 189701 GGTCAACGAA GAAGGCACTG AAGCAGCAGC TGCCACAGCA GGAGTGATGG
 189751 TGCTCCGTTG TGCTATGATC GTTCCCGACT TCACTGCCGA TCATCCCTTC
 189801 CTCTTCTTCA TCCGGCACAA CAAAACCTTC AGTATTTTGT TCTGTGGCAG
 189851 ATATTGCTCT CCCTAAGAAG AGAGACAGAA GAGCTACCAT TAACGCAGTA
 189901 ATGTGATTTT TTTTAGGATA GAACTGCTCT TTTGCACTAA CTGCTTATTT
 189951 CCACTGTGCC TGAATCCCCT TATCTGGTTG TCATTTTGGG CTTGCGTAGA
 190001 GTAACAAAGC CACTTACACA TACACAGCAG CTACCACTTG AAACAGCTGC
 190051 CTTACACTTT GCACCTAAGT GGAGTTGTTT TCTTGCTGGC CCAAGAAAGA
 190101 TGAACATCCC ACTTGCTCAG TGAACCTCCA CCTGTCTTAT ATTTTCTATT

MAR (0.658)

190151 GCACTTTGCT TTTGTGTGGC CACCAGGTAG CAAGGTGACA AAGAGAAAAG
 190201 AAGTGGATTT TGTTTCTGAC TATAGTGGA GATATCTTAT GCTCTGCTCC
 190251 CCATTTTTTCT TCCTCTCCCC ACTTATTTTT AACTTTTTCT TTAATGTTTT
 190301 GATAATAGAG GGAGATGAAA GGAGGCTTTG GCGACCTATT TGTAAGAGTT
 190351 ACTAAGCATC TGCACTAGAC AGAGGTTTTA TTATAACTGG ATAGCACTTA
 190401 CACAAGGATG GGAATAAAAG TATGTCTGTA ACAAATGACC TTAGAGGTTT
 190451 TCATGGAGTA CGGATTCTTA TCTTAACACC ACATGTGCCA CCTGGGAATA
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190701 GCAGTGATTT ACGTGTTTTG CTGTTCTTGA AAGAATAAAC AAATTTGTTG
190751 TGAGTGCTGT GGGCATTGCC CATAAATTTT GTGGGGTTTT TTTTTTTCAT
190801 GGCTACTGTA AAGAAAACAA GCAATCAACT TTCGTGTAGC TTATGCAGAA
190851 TTCATTGCTT AACAGAGGCT TTTCTGAATG CTGCAAGACC AAGATGCTTA
190901 CCTGGATTAC GATGGAGTTT AGGTTTTTAC CTTCGAAGGA TTCATAGCAA
190951 GGAGTCTTTG AGGCAAAGGC TCAAGGGATT TTAAAGACTA TCTGGTTCCA
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191051 GACACCTCCA AGGATGGGGC ACCCACAGCT TCCCTGGGCA GCTGTGCCAG
191101 TGCCTCACCA ACCTCCAAGT GAAAAAGATC CCCCTGACAT CTAATTGAAA
191151 GTTCCTTTCA TTTATTTTAA AGCCATTCCC TCTTATTCCA TCACTATCAG
191201 ACCAAGGCTC CCTTTATGTA TTGGAAGGCC ACAACAAGGT CCCCTTGGAG
191251 TCTTCTCGAG GCTGAACAAG CTAAGTGCTT GTTTCAGAT GGGGTACTGC
191301 TGCTGTGGGT GCAACTCCTT GGCCCCAGGC CAAGGAGTGT GCCATGCCTC
191351 AGATGCAGCG ATTAGTCACC ATTTGGGGTG AGGAAGCTGC CAAAGTGCTG
191401 CCTGTCAGAC CGATGCTCAG TCAGGGCTGA GAGCAGCAGT GGGTAGAAGG
191451 GAAGTGGGCA GCCTCTGCTC CCAGTGCATT GTCTGGGAAG GGGGTGGTAG
191501 CAAGATGAAA AGTAGAAATT TTTCTGACCC TTCCTACGTG TCCAGGCTGC
191551 TGCTGGAGTG TATTCATGGT GCTATGCTTA AAGTGAAAGC AAAAGCGTGC
191601 TTGTCTAATT TGCTTCTTTT CTAAATTGAA AAGGAAAGTA ATCACATTAA
191651 CGTCTACCAT AAAGCAGAGA GAAGCTGCCA GAAAGCTTGA GAGAAGCTAG
191701 AAGCAGCCAT ATCTACAAAT CCCAGTGCAA ACAAGAAGGA GGGATCCAG
191751 CTGCACAAGC AGGAAGGCAG GAAGGTTTTA CAGCACTGTC TGCCGCCAGC
191801 CTTTGCCTAA CCATCTGCCC GCCCCAGCAT TGCACCTTTC AACCCACTCC
191851 CAGAGACCTC ACAGCTCCCA GTGGTCCTAG CTCCAGCTTA CTGCTGGCTG
191901 CTCTCCTCCT GGTTTGATCC TCCCTAGCAG CTGCCAAGCA TCACAGGAGG
191951 TAAGTGTGTG CTTGCTGTGC CTCTGCATT TGCAGCCTGA AATGAATCCA
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z3 gene exon 1

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192051 CTGAAACTTT TATTTTTTCAG CTGCAGCCAT GGAGAGCCTG AGCAATGCCA
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192151 TCAGGAAACA TTTTCTTCTC CCCTCTCAGT ATTTCTACTG CTCTGGCCAT
192201 GGTCTCTCTC GGGTCCAGAG GTAATACAGA GACACAGGTG CTGAAGGTCA
192251 GCAGCATTTT CGCTTGTTTT ATTAATAATTA AATGTTGTTC AGTTTTAGAG
192301 ACAAGGCAAG GGGAGGAGGG CGTTATTTGC GTGAGCTTGG GGCAAGGTTT
192351 CTGTCACTCC TGCTGACTCT TCCCCCTGCT TGCCACCTGC CTGCTGCACT
192401 CCAGAGCCCT CCTCTTGTC TCACTGATAG CCCTTCTTTC TCACTTCATT
192451 TGGGTAAATT GATGAATCTG GAAACTAATT TCACTGATTT ATCAGTCTTA
192501 ATTTAAATC GATTAGCATC TCCAGCAGCA AGTCTTTACT AGAGCTTGTG
192551 ATAGGACATG GGGGAACAGC ATTAAACAAA AAGGGAAGAT TTAGGCAAGA
192601 TATTTGTTAG AGGAAGTTTT TCCACTGAGA AAGTGGTGAG GTGGTGGCAC
192651 AGCTGCCCAG GGAAGCTGAG GGTGCCCCAT CCCTGGAGGT GTTCAAGACC
192701 AGGTTGGATG GGGCCCTGGG CAGCCTGAGC TGGTGGGTGG CTGCCCTGCC
192751 CACAGCAAGG CAGTGGAACT GGGTGGGCTT TAAGTTGAAT TCCAGCCCAA
192801 CCCCATTCTA TGATTCTATG AGCCTTTTCC ACAGAGAACT ATTGTTTTGC
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192951 CAATACATGG TGATGTTACC CAAGACCCAG TGTTATAGCA GCCAAGCACC
193001 CAGTATTTCT GAGGAGCAGA ACTCACGTGT CCATTCTCAT GGTATCCTTA
193051 GGTTGAGCAG CAGAGGTTAA ATGAAAATGG TGTGGCTCCT TTAGTGGGGG
193101 CTTTGTTGTG GACCCAGCTC ATCAATCCTT TCCCACTCTC CACAACAGCA
193151 GTTGCAAAC TCAAATCTC ATGTAGGTAG CAGTGCCAAT TCCCTCTCAG
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193351	AGAACTTGTT	TAGACCATTA	ACTGCTGCCA	TTCTTTGTGA	AAAGACTATA
193401	AAACTGAATC	ACTGCTTGTA	GAAACAGACT	TTGAACATAC	ATTCCTTATA
193451	ACTCAACTGT	CAGCCCCACC	CAGGAAGAAT	CTACTGAGAG	CAGAAATAAT
193501	GCAAGAGAAG	CATAGGGAAG	TTGGAGATAG	AAGGTTGGGA	TGAATGGTTG
193551	GACTGGGTGA	TCCTGTGTGT	CTTTTCCAAC	TTCAGTGATT	CTATGATTCT
193601	AAGGTGTTTC	AGCACAGTAA	CCTTCTGTAA	TGCACATTCC	CATGGTATAA
193651	TGTTTAATTG	ATGAGAACAT	CAGTTAATTA	AGGAGATGAT	GACTGATGAG
193701	TGTGAAGGGT	GTTTATAAGC	ATGCAGAAAT	CCATTTCTGG	GATCATAATC
193751	CTACCTTAAG	TTGGAATCAT	AGAGTACACC	ACGGTGGAGG	GGATCCATGA
193801	GGATCCAGCT	CCACACAGCA	CCACCCACTA	TGGTAGATCC	TGCTGCCCAA
193851	CCTGCACACC	TTGGCTAGTC	AGCTTCCCTT	CAGGTATCTG	TATGCACGCT
193901	TTCATATTAT	AACAGCTTTT	AATTTTAAGG	TGATAGTTGT	CTGTAGAAGC
193951	ACTTATATTT	TCATAAAACC	AAAGGTTATA	GCTCTCACAT	TTTCCTAACA
194001	CCTCACCTTC	CCTGAGTGCT	CAGACAAGCT	CAGTAGTCCA	CGGAGGAAAA
194051	ACATGCAGAC	AGCACCTTAT	TAGGACTCTG	GATCACAATT	AACAGCTTCA
194101	GCTGTGGCTA	ACTGTATTCA	GCTACTGCTT	TACAAGTGAC	ATGGCTGGCA
194151	CAGCACTAAG	GGACAGTTTC	ACTTGTTCTT	TGATGGTTAC	AGCTTTCAGC
194201	TTCTTTCTGC	TTTTGTTTTT	CAACTTAACT	ACCAAACAAA	TACCATACAG
194251	ATATGCTGCA	TGTTCTCTAT	AAATACAGCA	TTAGCAGTAG	TTAGCTCATC
Z3 gene exon 2					
194301	TCTTTCATTT	CAGACGTTTC	ATTTTGATGA	AGTTGAAAAAT	ATACACTCAA
194351	GATTCCGGGC	TCTGACTGCA	GACATCAACA	GAAGGGATTTC	TTCCTGTCTC
194401	CTACGGATTG	CCAACCGGCT	TTATGGAGAG	AAGTCCTACA	GCTTTCCTGCC
194451	GGTATGGGTA	CACAGACCAT	AGCTGTGTGG	TGGAACCTGG	GGGGAGGCTT
194501	TGTAACCTCA	TCATCTGTTG	CTCTCCTGCC	TCCAGAACGC	GCCCCATAGC
194551	AAAAATATCA	CACCAGCAAG	TCCAGATGTC	AAAACTATCT	TTCTGCATCA
194601	ATAAGCAGCA	TAGCTCAGGT	GTTGCTGTCT	TTATAGGAAT	GCAGCCATTT
194651	GAGTATTTGA	GGTAAAAACA	TGACTAGACA	TCTAAAAGTT	ACCAGGCAGT
194701	CAGTACGAGT	GTTGTACACA	TGCCTATAGA	TGCAGAAATG	CATATGCATC
194751	TGGACATCCT	AAAGGATACG	CCTAGAGGAT	ATTACATAAC	AAATCCCTTT
194801	CTTTGATAGT	TCAGTTCTGC	TGCTTTGGGG	CTCAAGAGAA	ATTGCAAGCC
194851	ATGTAGGTTT	TTAGCTTAGA	GTACAGATTA	GCAATGCCCC	ATTCCTCTGT
194901	CTGTTGTTTT	TTAGGCTTTT	CATTGCTCTA	GTACTATATT	ACTTAAAACA
194951	TTTTTGAAAA	CATTTCTCTG	GGGGGAGATT	GCCATCATGT	CTCAACAGCA
195001	TGCCTCTTTA	CAAGGGAAC	GTACCTCTGC	ATCTATTTAG	GTACTGCTAT
195051	TTTTATCCCT	CTCCAGCTCT	TTCTGGGAGT	TTTTGTTTTT	TTAGTCAAGC
195101	TT				

Fig. 1

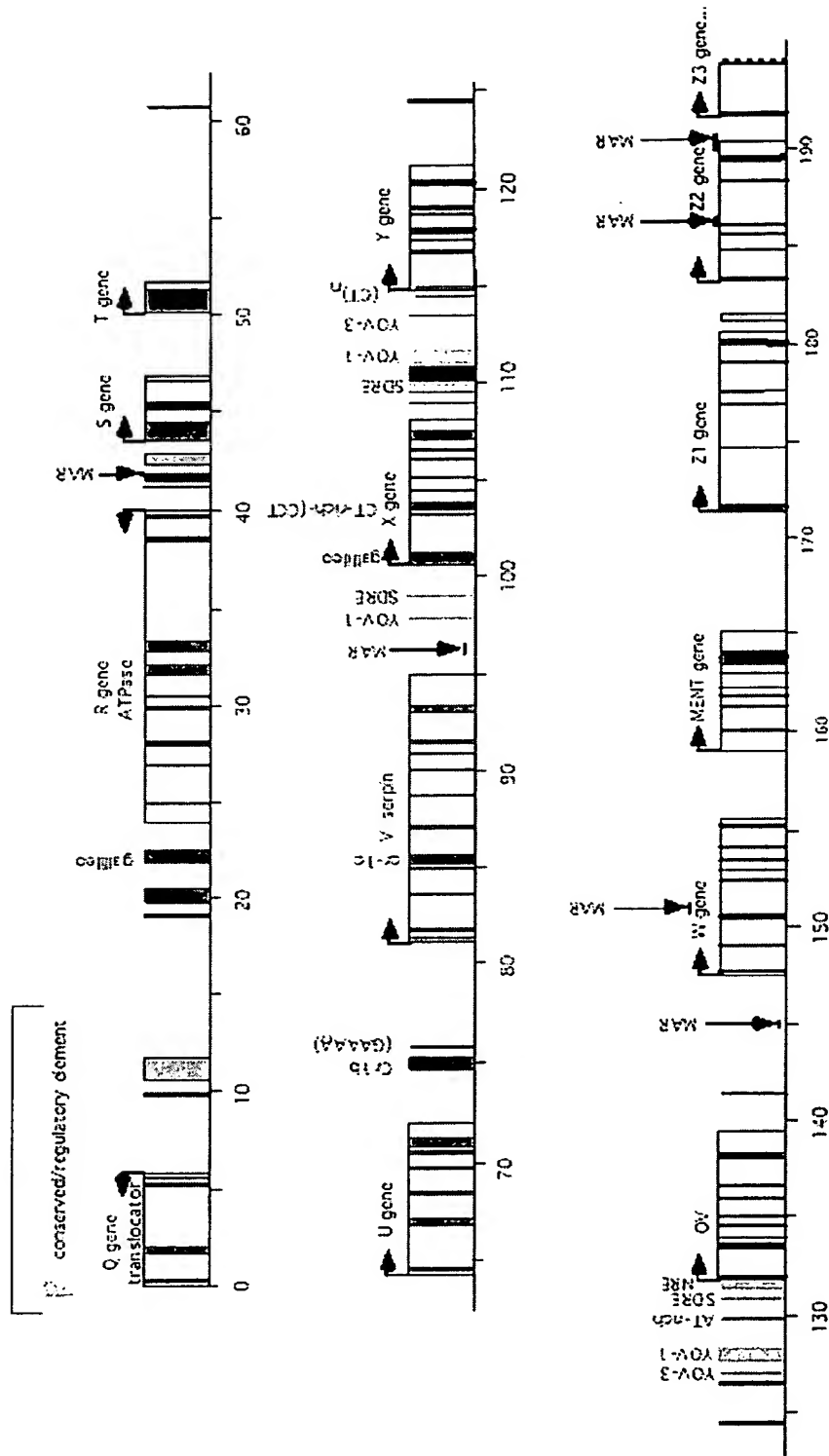
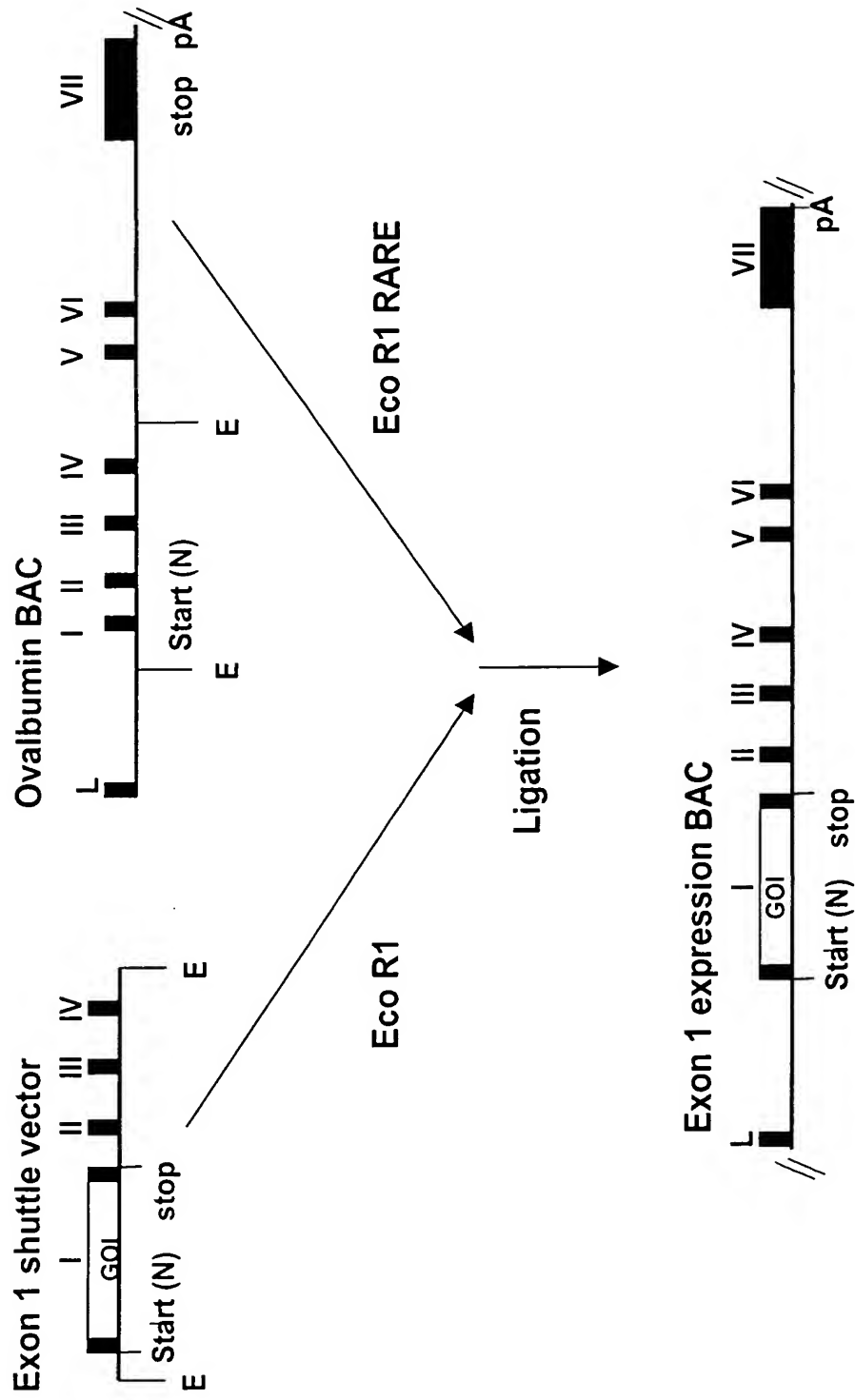


Fig. 2

**Fig. 3**

SEQ ID NO: 2

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GCTATTGCTTTATTTGTAAACATTATAAGCTGCAATAAAACAAGTTAACAACAACAATTGC	180
ATTCATTTTATGTTTCAGGTTTCAGGGGAGGTGTGGGAGGTTTTTTAAAGCAAGTAAAAC	240
CTCTACAAATGTGGTAAAATCGATAAGGATCCGTCGAGCGGCCGC	285

FIG. 4**SEQ ID NO: 3**

TGCGATCTGCCTCAGACCCACAGCCTGGGCAGCAGGAGGACCCTGATGCTGCTGGCTCAG	60
ATGAGGAGAATCAGCCTGTTTAGCTGCCTGAAGGATAGGCACGATTTTGGCTTTCCTCAA	120
GAGGAGTTTGGCAACCAGTTTCAGAAGGCTGAGACCATCCCTGTGCTGCACGAGATGATC	180
CAGCAGATCTTTAACCTGTTTAGCACCAAGGATAGCAGCGCTGCTTGGGATGAGACCCTG	240
CTGGATAAGTTTTACACCGAGCTGTACCAGCAGCTGAACGATCTGGAGGCTTGCGTGATC	300
CAGGGCGTGGGCGTGACCGAGACCCCTCTGATGAAGGAGGATAGCATCCTGGCTGTGAGG	360
AAGTACTTTTCAGAGGATCACCTGTACCTGAAGGAGAAGAAGTACAGCCCCTGCGCTTGG	420
GAAGTCGTGAGGGCTGAGATCATGAGGAGCTTTAGCCTGAGCACCAACCTGCAAGAGAGC	480
TTGAGGTCTAAGGAGTAA	498

Fig. 5

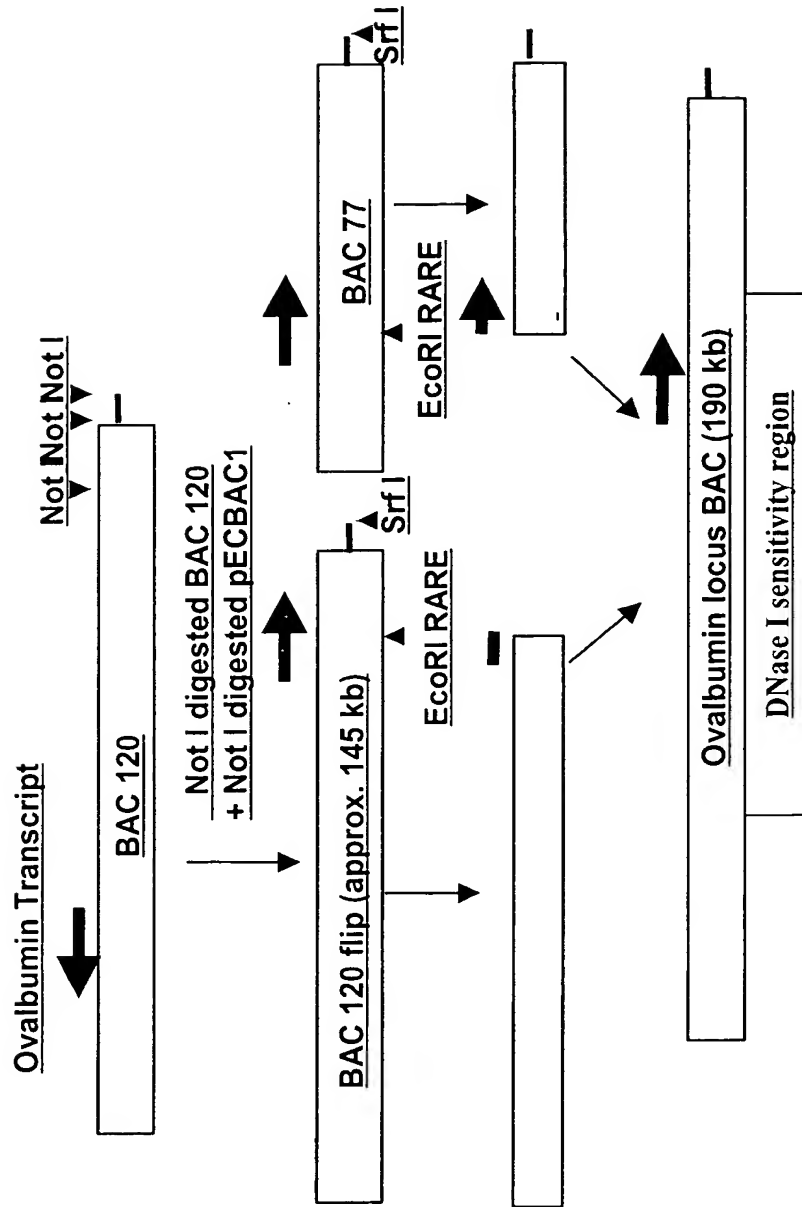


Fig. 6